LG AIR SOLUTION





# **LG Electronics**

http://www.lg.com http://partner.lge.com

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# **OUTDOOR UNITS**

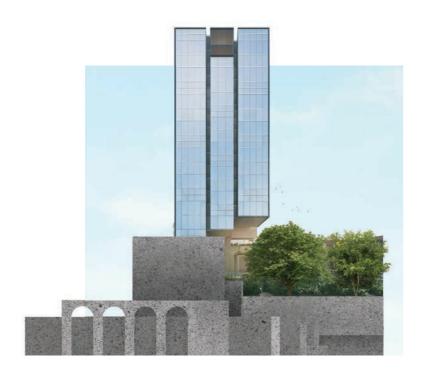
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MULTI V S 060

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MULTI V WATER IV 092

(HEAT PUMP / HEAT RECOVERY)



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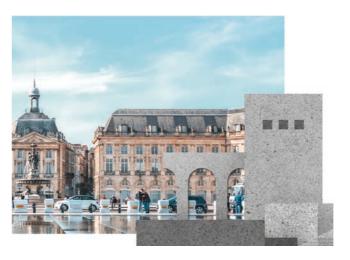
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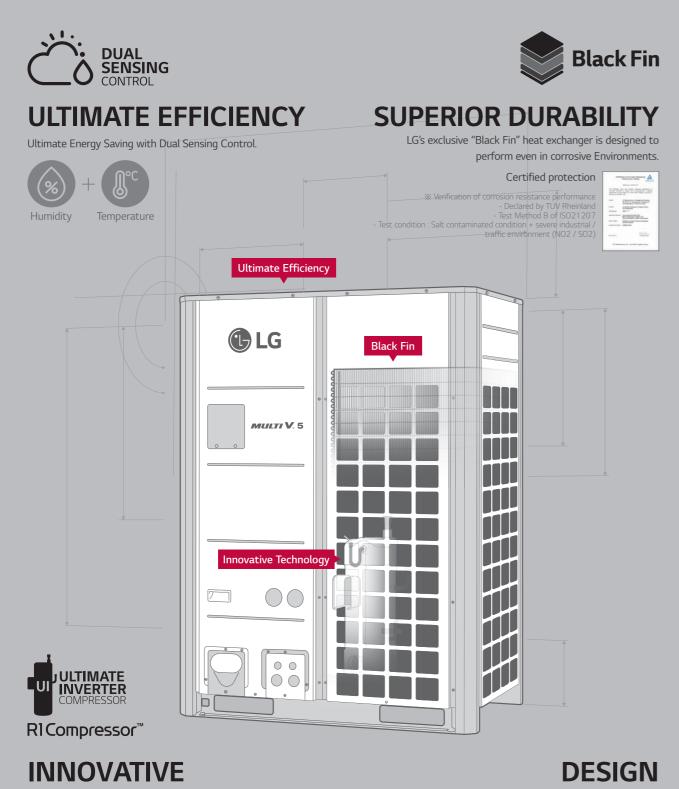
318

# **ACCESSORIES**

MECHANICAL ACCESSORIES 320
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# ADVANTAGE OF **MULTI V**



# **TECHNOLOGIES**

Ultimate Inverter Compressor - MULTI V 5 Revolutionary Scroll R1 Compressor - MULTI V S R32, MULTI V M

# **FLEXIBILITY**

Flexible Installation with Large Capacity Outdoor Unit. MULTI V 5 enables easy type change-over to suit the purpose of any building. MULTI V S allows versatile design with flexible piping locations.



# **R32 APPLICATION**

New line-up applying the industryfirst mini VRF with R32 refrigerant to MULTI V S.

# **DIVERSE PRODUCT** LINE UP

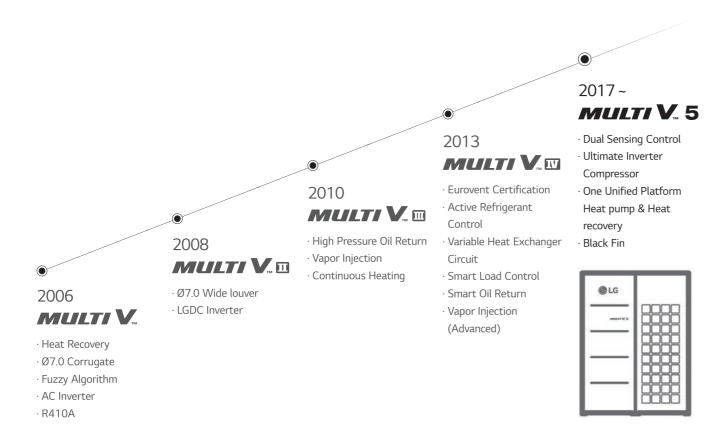
Integrated solution optimized for various business environments, including hot water, AHU, BMS, and EMS.

# **SMART CONTROLS**

MULTI V responds to diverse building environments with LG ThinQ-based AI control and individual / central integrated control solutions.



# **MULTI V BRAND HISTORY**



Since the time when LG launched Korea's first residential air conditioner in 1968, the company has worked to continuously enhance its technological innovation and reliability. As a result of sustained improvement, LG VRF launched the first generation of MULTI V in 2006 and achieved significant development. With the best-in-class compressor technology and innovation applied to every part and control solution, MULTI V has evolved to be one of the world's most efficient and reliable VRF solutions.

The first and second generations of MULTI V boasted inverter technology and non-ozone depleting technology, while MULTI V III was produced with cutting edge tech like oil return with HiPOR and double compression features with mid-pressure refrigerant allowed by Vapor Injection. The innovative technologies of MULTI V's fourth generation brought about product leadership in efficiency. Its smart load control adjusts with the outdoor temperature, while optimizing refrigeration management and heat exchange for both cooling and heating.

MULTI V's wide range of VRF solutions satisfies various building types and sizes. MULTI V S's size discharge was designed for small to mid-sized buildings while MULTI V Water is a water-cooled VRF solution with variable water flow control technology.

In 2017, the ultimate VRF solution was introduced with MULTI V 5. This generation has fully improved its technological potential with the powerful and reliable yet economical Ultimate Inverter Compressor, effective corrosion resistance with the Black Fin coating and enlarged fans. Dual Sensing Control offers the most pleasant indoor environment while minimizing unnecessary energy loss by sensing both temperature and humidity to efficiently manage cooling, heating and part load.

MULTI V 5 has been designed for the ultimate efficiency, performance, flexibility, comfort and control, ensuring the most pleasant indoor experience.

# INFRASTRUCTURE IN EUROPE



# LG Air Conditioning Academy

LG has set up 20 official air conditioning academies in Europe, teaching much needed skills to thousands of current industry professionals including installers, consultants, designers, sales staff and service technicians. The academy program is being used to share expertise and educate these HVAC experts by providing a cutting-edge technical experience with the newest and most advanced technologies and equipment. Moreover, as LG's entire product range is installed on site, professionals can be trained in a realistic way that offers them the chance to experience the latest products first-hand.



# European Air Conditioning Distribution Center

LG's European Air Conditioning Distribution Center is located in Oosterhout, the Netherlands. Supplying and delivering products all over Europe, this distribution hub has contributed to smooth and rapid delivery, direct shipping for smaller orders and delivery tailored to air conditioners. The hub tries to manage inventory efficiency by taking advantage of LG EU's established inventory pool.

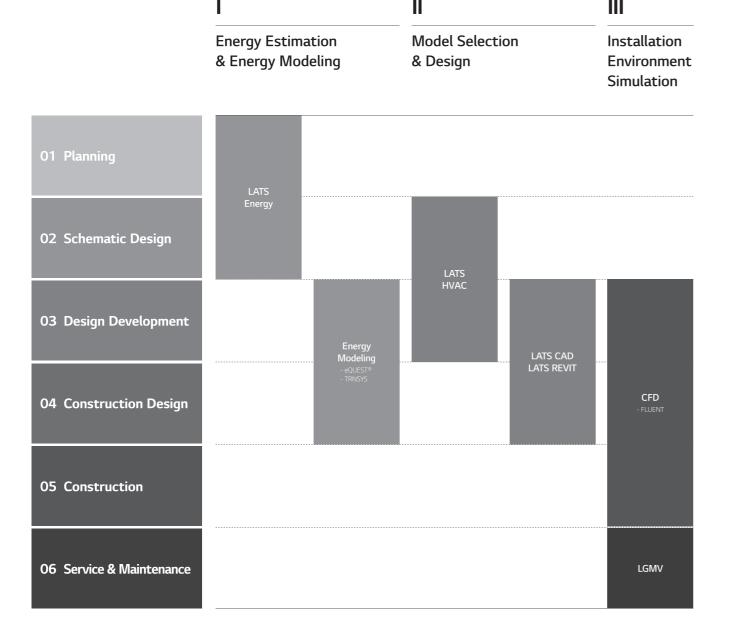


WHY LG MULTI V

# **ENGINEERING TOOLS & SUPPORT**

From planning to service & maintenance and then to de-construction, an architectural project goes through many stages from the beginning to the end of its lifecycle. Along those stages, various engineering tools are applied to solve the diverse issues happening in each stage, with the most optimal solution possible. Given the usage of such tools, buildings are effectively designed, built, supervised, and maintained throughout their lifecycle.

Dedicated to provide the best HVAC engineering support, LG Electronics Air Solution Business Unit offers several engineering tools and solutions focused on HVAC, during the overall lifecycle of a building, related to the three categories. Among them, the LATS\* Program series has been developed to offer the best tool for LG HVAC systems, providing our customers with a solution that allows for faster, easier and more accurate model selection, draft energy estimations and more.



# 01 Draft Energy Estimation

# LATS Energy

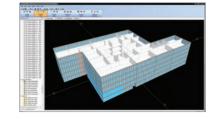
LATS Energy is a program developed by LG to estimate energy consumption and analyze the life cycle cost of LG commercial air conditioning systems during a project's early stages.



# 02 Building Energy Modeling

# eQuest, EnergyPro, Trace700 and More

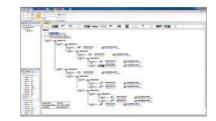
These are certified commercial programs which assess the HVAC system efficiency and building's annual energy savings for building standards or certifications, like LEED. LG HQ supports these programs for the project stages of Design Development and Construction Design wherein the overall designing is finished.



# 03 Model Selection

#### LATS HVAC

LATS HVAC is a model selection program that accurately and quickly selects the most suitable LG commercial air conditioning systems for each design. In addition to model selection, faster estimation on refrigerant piping diameter and additional refrigerant is possible, along with auto printing of reports.



# 04 Design

## LATS CAD

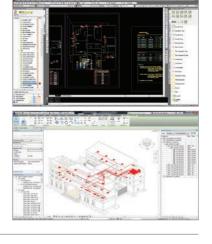
LATS CAD enables faster and more accurate 2D design of LG commercial air conditioning systems. It also enables modules for quotation and installation review that minimize inherent problems during installation and commissioning. 

\*\* AutoCAD program is required.\*\*

#### LATS REVIT

LATS REVIT allows BIM users to have an attractive 3D design of LG commercial air conditioning systems with embedded calculations for refrigerant and efficiency features.

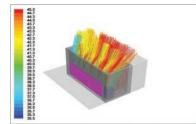
\* AutoCAD Revit program is required.



# 05 Environment Simulation

## **CFD Analysis**

CFD Analysis is applied in areas of estimating: indoor airflow and temperature distribution while operating VRF products, outdoor airflow distribution, and noise level. By running a simulation before construction, engineers estimate possible issues and find optimal solutions for malfunctions that could occur after construction.



# 06 Service & Maintenance

#### IGM

LGMV offers real-time MULTI V cycle monitoring. During start-up, LGMV can check for normal operation as well as troubleshoot any errors. Also it helps to find causes of errors and solve the problem faster.



WHY LG MULTI V

<sup>\*</sup> LATS : LG Air-conditioner Technical Solution

# **BENEFITS OF LG MULTI V**

# Benefits for

# **Building Owners**



# **Efficient Management & Cost Reduction**

- Fault Detection Diagnosis enables easy maintenance
- Requires no extra manpower for regular maintenance
- With diverse control systems, maintenance cost is minimized



# Reliability at Every Stage

- Ultimate Inverter Compressor developed and manufactured in Korea
- Corrosion resistant Black Fin for harsh conditions operation
- Smart Oil management (Auto Oil Balancing and Active Oil return) decreases compressor damage



#### **Customized Comfort and Solution**

- Compatible option between Heat pump and Heat recovery system is possible



# Benefits for

# **Developers & Construction Companies**



#### **Green Solutions**

- Optimized for LEED/BREEAM certification
- Renewable energy solution provided through geothermal application



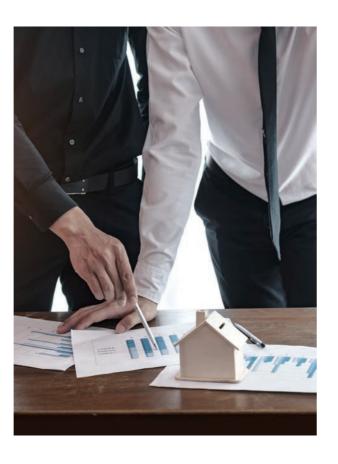
# Maximizing Space Utilization

- Large capacity in compact size enhances space utilization



# **Smart Building Solutions**

- Seamless integration with current Building Management Systems
- Wi-Fi control available for anytime, anywhere access (via the 'LG ThinQ' mobile app)
- Energy management and control according to usage and planning is possible with LG's centralized control solution



# Benefits for

# Consultants



#### **Versatile Solutions**

- Air-cooled, Water-cooled, Heating, and Air Handing Unit interlocking solutions



# Professional Design Support

- LATS (LG Air-conditioner Technical Solution) for draft energy estimation, model selection, HVAC design and 3D designing
- CFD Analysis to ensure suitable solutions and prevent malfunctions
- Energy simulation offered to find the optimal solution



# Optimized Convenience with HVAC Design

- Flexible and longer piping length facilitates HVAC designing process
- · Meets any type of customer requirements of diverse environment, design conditions, and building applications



# Benefits for

# **End-users**



# **Cost Saving Operation**

- High efficiency guaranteed throughout product
- Up to 31% cost savings with MULTI V's Smart Load Control\*



# **Comfort Cooling & Heating**

- Smart Load Control maximizes indoor comfort level
- Dual Sensing Control offers pleasant and comfortable cooling and heating environment
- Duration time of Continuous Heating is 11% longer than previous model\*\*



#### **Convenient Functions**

- Low-noise operation provides a pleasant





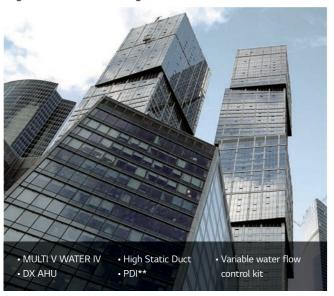
WHY LG MULTI V 012 I 013

# **APPLICATION SOLUTIONS**

# Office

Supporting efficiency with flexibility

High Rise Office Building



Small to Medium sized Office Building



The MULTI V series revitalizes the workspace by providing fresh air at all times. LG's intelligent control solutions add comfort to any space.

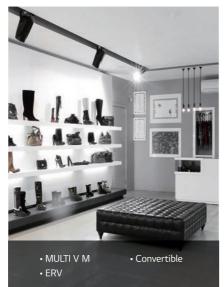
# Commercial

Maximizing business, minimizing cost

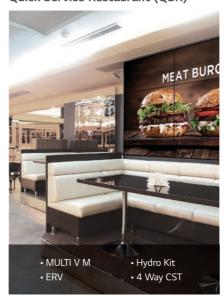
**Shopping Mall** 



Retail



Quick Service Restaurant (QSR)



The highly efficient, energy saving MULTI V 5 and MULTI V M reduces operation costs, and provides comfort that suits any purpose and any space, helping to invest the extra space and expense to your business.

# Residential

Creating a comfortable home

**Condominium & Apartments** 



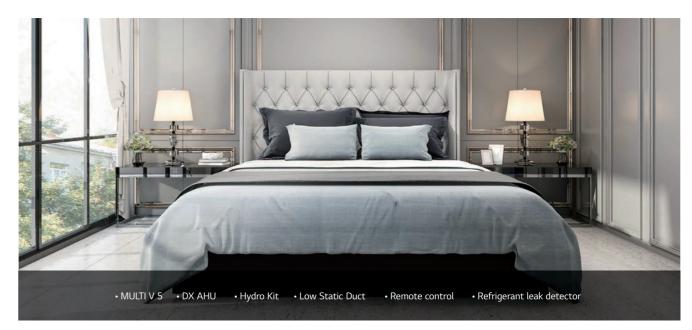
Single Family House & Villa



Remarkably compact size and high static pressure of MULTI V S enables optimal space solution, providing comfort to every space through individual zone control and hot water solution.

# Hospitality

Meeting diverse needs



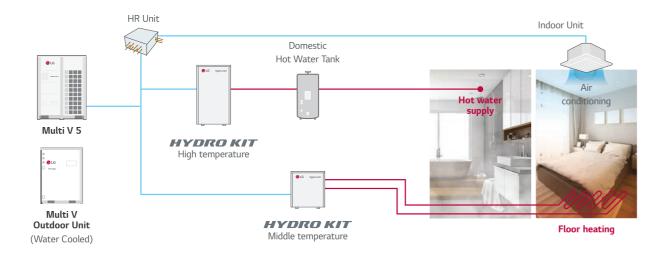
The diverse applications that can be applied to MULTI V 5 helps bring just the right solution to a sophisticated hotel business.

WHY LG MULTI V

<sup>\*</sup> ESS : Energy Storage System \* PV : Photovoltaics

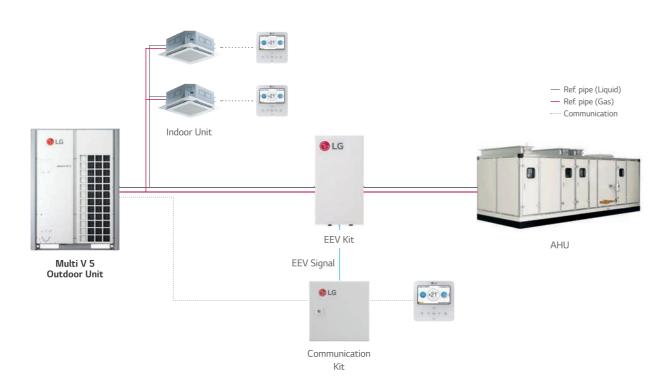
# **Hot Water Solution**

Water heating costs can be reduced with a heat pump, which provides higher efficiency than a boiler system. The Hydro Kit can be connected to Multi V 5, providing temperatures up to 80C. Energy savings can be maximized with the combination of the Hydro Kit and the Multi V 5 Heat Recovery system.



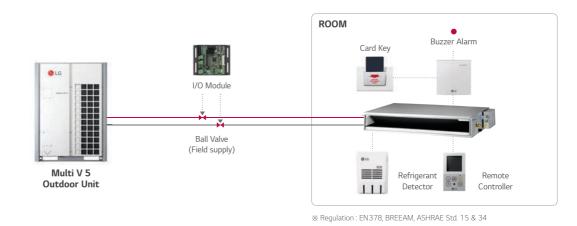
# Air Handling Unit (AHU) Solution

AHU is a suitable solution for cooling and heating in large space. With an LG AHU Comm. Kit (for both return air / supply air control) connected to the DX coil of the AHU, LG VRF system can be applied to deliver conditioned air.



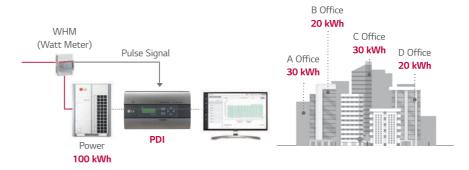
# **Refrigerant Leak Detection Solution**

Real-time refrigerant leak detection ensures a safe environment. When refrigerant concentration exceeds 6,000ppm for 5 seconds, the indoor unit will stop operation and alert users with a buzzer or light switch (Dry contact option).



# **Power Consumption Distribution Solution**

In case of shared power consumption in a building, a solution to distribute the power consumption amount per tenant might be necessary. Electricity charges can be billed to each tenant by using output from the LG Power Distributor Indicator (PDI). An administrator is able to check the power usage for each space and date as needed. If the PDI is used in conjunction with an LG central controller, the results can be exported to Excel.



# **Total Control of Any Device**

In order to manage multiple spaces and multiple buildings, the administrators should be able to control systems from wherever they are. The LG central controller can be controlled from any web browser that supports HTML5. Now through the implementation of HTML5, the interface will look great and perform well on any device.



WHY LG MULTI V 016 I 017

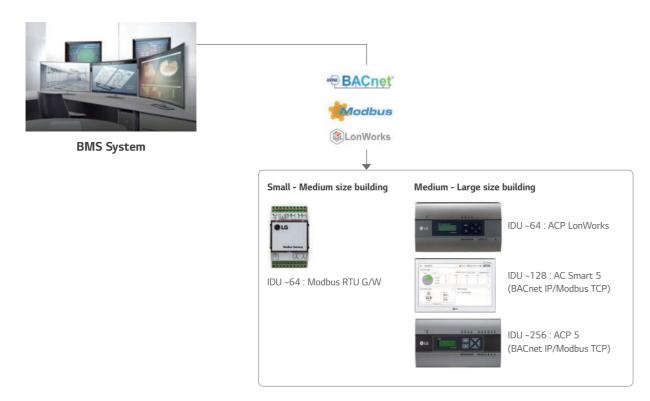
# **Energy Management Solution**

Since HVAC systems use a significant portion of any building's total amount of energy, the energy saving functions of a controller can make a big difference. The energy navigation function enables you to set target values for energy consumption over a certain period of time. In addition, to achieve that value, the administrator can set the energy saving logic in 7 steps and predict the expected usage relative to the target value. Active self-management enables energy savings throughout the building.



# **Integration Solution with BMS**

There are many BMS protocols used for the control of buildings' various systems such as HVAC, lighting, power and security. LG has a wide range of gateway products for different protocols such as BACnet, Modbus, and LonWorks. In addition, LG gateways include Stand-alone central control capability to act as a back-up controller of the BMS if needed.



# Interlocking Solution by Using ACU Module

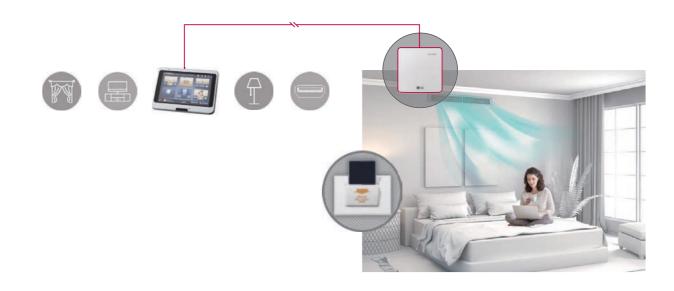
It is costly to introduce a BMS system to control multiple devices or systems in a small building. With the ACU module, various IO contact points (DI, DO, UI, AO) can be interlocked and integrated, while control is possible from the LG central controller. This enables an efficient management of lighting, pumps and other devices in the building in conjunction with the HVAC system.



# **Interlocking Solution Using Dry Contact**

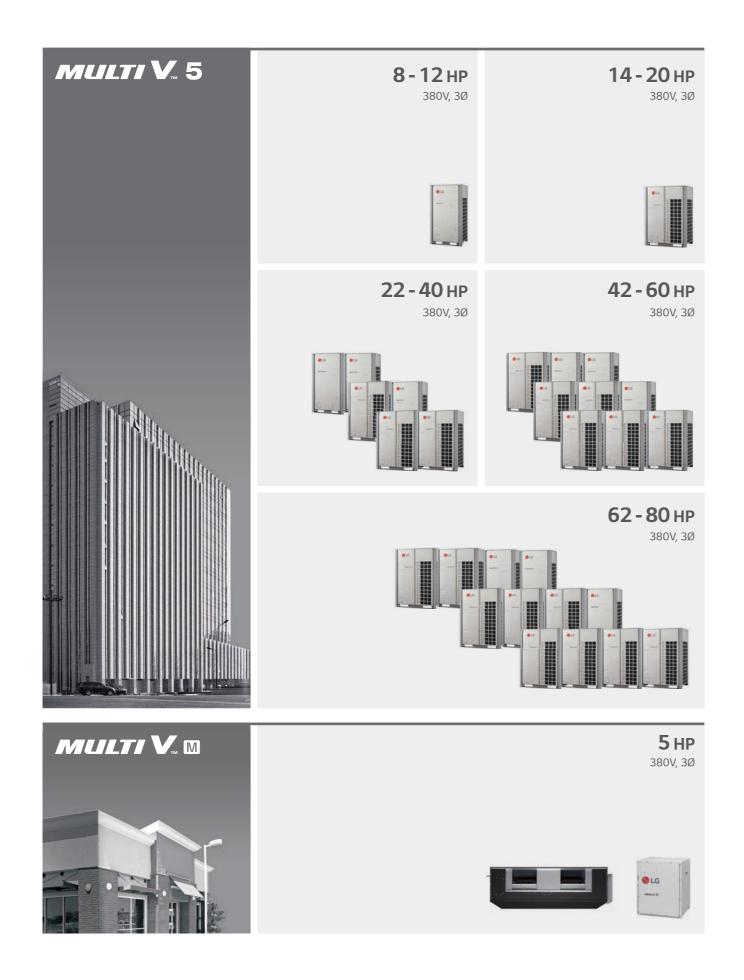
3<sup>rd</sup> party thermostats can be used to control LG air conditioners in a room by using a multi point dry contact. The dry contact enables basic control of air conditioners as well as making it possible to report the status and any errors impacting the indoor unit. The Standard III remote control has a DO port. With this DO port, it is possible to interlock the indoor unit with 3<sup>rd</sup> party devices such as lighting, a fan, or a radiator, based on things like operation mode or current temperature.

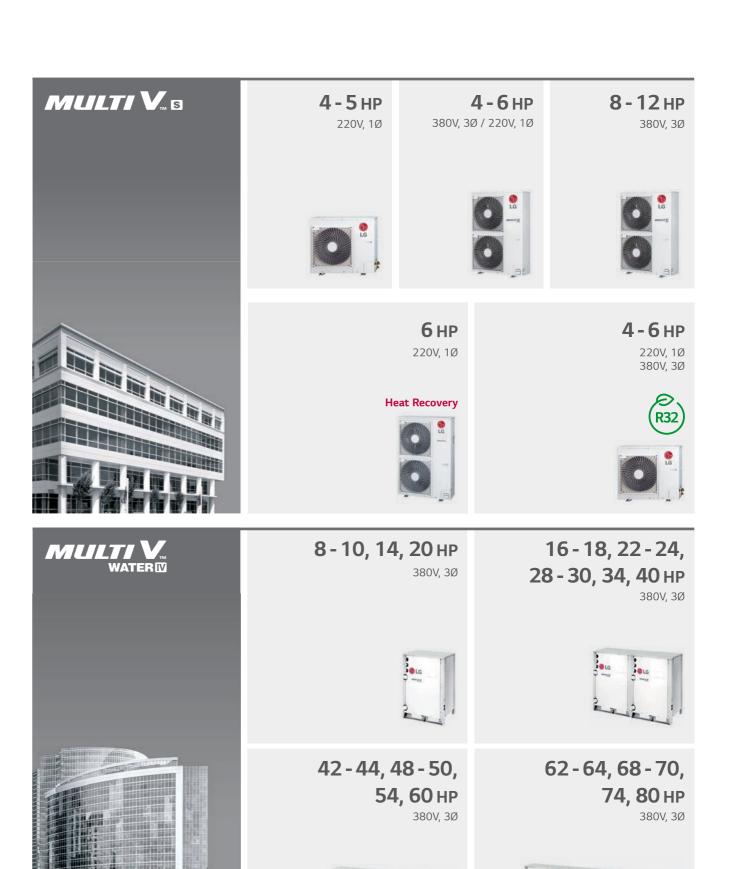
The indoor unit can be interlocked with various types of input such as card key-tag, door sensor, human detection sensor etc. so that the air conditioner is automatically operated. In addition, the dry contact option settings enable operation of air conditioner to maintain proper temperature when the occupant is absent. This solution makes sure that the room does not overheat or become too cold when unoccupied so that energy cost can be saved.



WHY LG MULTI V 018 I 019

# OUTDOOR UNITS LINE-UP





Features	Appearance	4 5 6 8 10 12 14	16 18 20 22 24 26 28 30 32 34 36 3	38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78	80
• Dual Sensing Control					
<ul> <li>Large capacity ODU (Up to 26HP)</li> <li>Continuous Heating</li> <li>Black Fin heat exchanger</li> <li>Heat pump / heat recovery</li> </ul>		•			
Flexible installation     (Heat recovery unit & large capacity)     Large space, Individual control building  MALL  P  MALL					
Shopping mall Education Airport					
					•
MULTI V <sub>m</sub> s	0				
• Space saving • Flexible design Slim, light, broad range (4 -12 HP) Large number of connectable					
indoor units (Up to 20 Units) • Small, Medium building	HEAT RECOVERY				
Apartment House & villa	(R32)				
• High flexibility of installation • Various indoor unit combinations & long distance between modules • Retail shop  Office  Cafe  Restaurant		•			
MULTI V WATER IV					
HEAT PUMP / HEAT RECOVERY  - High efficiency systems - Indoor installation - Low noise operation (No fan) - Simultaneous cooling & heating - Individual control building, - Large building					
Hospital Resort					•

	kW		1.5	2.2 2.8	3.6	4.5	5.6 6.2	7.1	8.2	9.0 10	).6 12.	3 14.	1 15.8	22.4	28.0		Energy	2 Set	Occupied / Unoccupied	Group	Test Run	Test Run	Model	Auto	Refrigerant	Thermo On / Off	Thermo On / Off	Static Pressure 11 Step Control	1 Point External	Filter Sign	Auto Restart Function Disable /	Wi-Fi
			5k	7k 9k	( 12k	15k	18k 21	k 24k	28k	30k 36	5k 42	k 48I	k 54k	76k 9	96k	Me	Energy lonitoring	2 Set Point	Occupied / Unoccupied Scheduling Function	Group Control	Test Run (Cooling)	(Heating)	Model Information Monitoring	Addressing	Leakage Detection	Thermo On / Off Range Setting (Cooling)	Setting (Heating)	Static Pressure 11 Step Control (Only for Ceiling Concealed Duct Type)	1 Point External Input (On / Off Control)	(Remaining Time)	Function Disable / Enable	Ready
	Artcool Gallery			• •	•												•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
4 <sup>th</sup> generation Wall Mounted	Artcool Mirror		•	• •	•	•	•	•									•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
	Standard		•	• •	•	•	•	•		•							•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
	4 Way Cassette (570 x 570)		•	• •	•	•	• •										•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
	4 Way Cassette (840 x 840)							•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
4 <sup>th</sup> generation	4 Way Cassette High Sensible (840 x 840)			• •	•	•	•	•	•	•	•	•	,				•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
Ceiling Mounted Cassette	Round Ceiling Cassette							•		•	•	•	,				•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
	2 Way Cassette			•	•		•	•									•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
	1 Way Cassette			• •	•		•	•									•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
	Mid / High Statics			• •	•	•	•	•	•		•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4 <sup>th</sup> generation Ceiling Concealed	Low (Slim) / Low Statics		•	• •	•	•	• •	•									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Duct	High Sensible			• •	•	•	•	•	•		•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4 <sup>th</sup> generation Fresh Air Intak	re													•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4 <sup>th</sup> generation Ceiling & Floor	Convertible			•	•												•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4 <sup>th</sup> generation Ceiling Suspen	ded					Т	•	•		•	•	•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4 <sup>th</sup> generation Console				• •	•	•											•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4 <sup>th</sup> generation	Floor Standing with Case			• •	•	•	•	•									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Floor Standing	Floor Standing without Case			• •	•	•	•	•									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Wall-Mounted		•	• •																												
4 <sup>th</sup> generation HYDRO KIT	Low Temperature	•10									•				•		•			•	•	•	•	•	•	•	•		•		•	•
	High Temperature	1									•	,		•			•			•	•	•	•	•	•		•		•		•	•
Energy	with Humidifier					•		•		•										•	•	•		•	•				•	•	•	
Recovery Ventilator with DX Coil	without Humidifier					•		•		•										•	•	•		•	•				•	•	•	

lpha If  $4^{th}$  generation indoor units are combined to  $2^{nd}$  generation indoor units, several functions are not available. More detailed information, refer to the "MULTI V Indoor units Compatibility Table"

# **LG HVAC CONTROL LINE-UP**

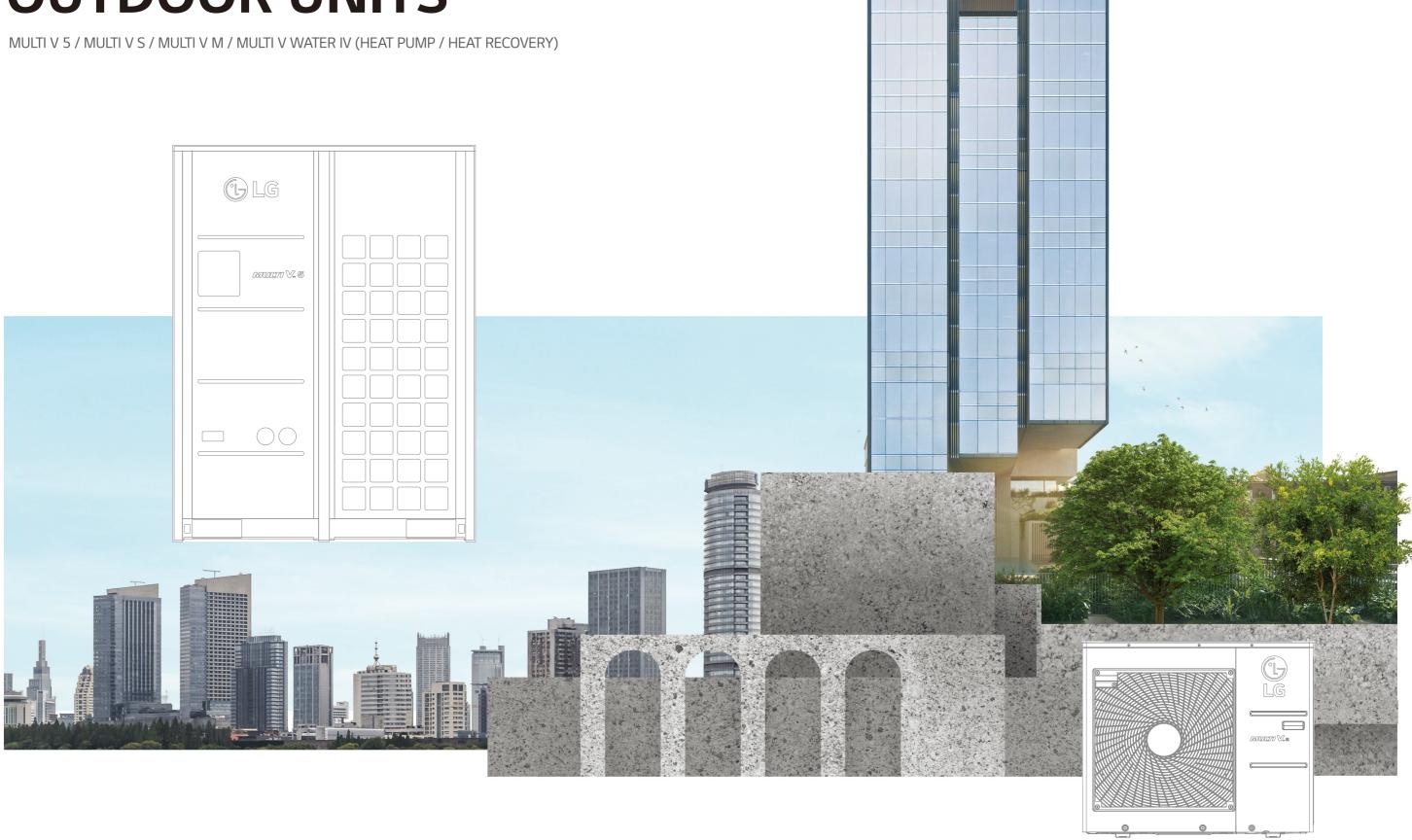
	Individual Control			Centralized Control	
Wired Remot	te Controller	Wireless Remote			
Standard	Simple	Controller	Display	Platform	Gateway
Standard III (White)			AC Ez	ACP 5	ACP LonWorks
PREMTB100	PORCVCLOQW	PWLSSB21H (Heat Pump)	PQCSZ250S0	PACP5A000	PLNWKB000
	, 4,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	PWLSSB21C (Cooling Only)	(Indoor Unit ~ 32)	(Indoor Unit ~ 256) BACnet IP / Modbus TCP	(Indoor Unit ~ 64)
Standard III (Black)		Wi-Fi Modem	AC Ez Touch	AC Manager 5	Modbus RTU gateway
200	(3) (5) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	T		•••	PLA
PREMTBB10	PQRCVCL0Q	For Indoor Unit PWFMDD200	PACEZA000 (Indoor Unit ~ 64)	PACM5A000 (Indoor Unit ~ 8,192)	PMBUSB00A (Indoor Unit ~ 64)
Standard II (White)			AC Smart 5		PI485
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
PREMTB001	PQRCHCA0QW (Simple for Hotel)		PACS5A000 (Indoor Unit ~ 128) BACnet IP / Modbus TCP		For Indoor Unit (ERV) PHNFP14A0
Standard II (Black)					
PREMTBB01	PQRCHCA0Q (Simple for Hotel)				For Outdoor Unit (SINGLE / MULTI / THERMA \ PMNFP14A1
Premium		-			
25:) == 0 6					



PREMTA000 PREMTA000A PREMTA000B

Centralized Control		Integratio	on Device	
Facility Integrator	Indoor	r Unit	Outdoor Unit	AHU Kit
raciney integration	Dry Contact	Control Accessory	outdoor offic	7 11 10 101
PDI (Power Distribution Indicator)		Group Control Wire	IO Module (Input / Output Module)	Communication Kit
		9)		©LG.
Premium (8 ports) PQNUD1S40 Standard (2 ports) PPWRDB000	Simple Dry Contact PDRYCB000	PZCWRCG3	For MULTI V IV, 5 PVDSMN000	Return / Room Air Control PAHCMR000
ACS IO Module (Input / Output Module)		Remote Temperature Sensor	Variable Water Flow Control Kit	
		•*	906	• 16
PEXPMB000	Dry Contact for Thermostat (For using universal input) PDRYCB320	PQRSTA0	For MULTI V WATER IV PWFCKN000	Discharge / Supply Air Control PAHCMS000
Chiller Option Kit		Zone Controller	Low Ambient Kit	Controller Module
PCHLLN000	2 Points Dry Contact (For Setback) PDRYCB400	4 Zones by thermostat ABZCA	For MULTI V IV, 5 PRVC2	Main Module PAHCMM000
ACU IO Module UIO		Independent Power Module	Cool / Heat Selector	
9 LO 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			**************************************	The state of the s
PEXPMB300	For Modbus PDRYCB500	PRIPO	PRDSBM	Communication Module PAHCMC000
UO				Control Kit
PEXPMB200				PAHCNMOOO
				(Max. 3 Outdoor Units)
UI				Water Communication Module
V (m.) 13-33 1 • LG 3-12-2-2-2-1				Constitution of the second
PEXPMB100				PAHCMW000
		EE	V Kit (Electronic Expansion Val	ve)
		•us	• ia	+
		PRLK048A0 ( ~ 28 kW) PRLK096A0 ( ~ 56 kW)	PRLK396A0 (~112 kW)	PRLK594A0 ( ~ 168kW)

# 028-117 OUTDOOR UNITS



# MULTI V<sub>IM</sub> 5

# Highlight

- Air cooled VRF Heat Pump & Heat Recovery
- 22.4kW ~ 224.0kW
- 3Ø, 380 ~ 415V, 50Hz
- Top discharge outdoor unit





# How does it work?

Partial Defrost







225m Longest Piping Length

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# **Dual Sensing Smart Load Control**

(SLC)

Enhanced energy saving & increased indoor comfort

#### Smart Load Control responds to:

- 1) Outdoor ambient dry bulb temperature
- 2) Outdoor ambient relative humidity (when enabled)

#### Cooling Indoor Units adjusts target low pressure

ambient temperature rises.

Raises the target low pressure value as cooling load falls and/or ambient temperature falls. Lowers the target low pressure value as cooling load rises and/or

#### Heating Indoor Units adjusts target high pressure

Lowers the target high pressure as heating load falls and/or ambient temperature rises. Raises the target high pressure as heating load rises and/or ambient temperature falls.

#### What are the benefits?

#### **Enhanced energy savings**

## **Cooling Mode**

By raising the target low pressure during off-peak cooling operation.

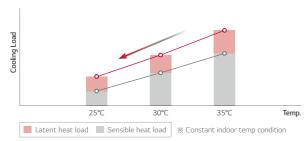
#### **Heating Mode**

By lowering the target high pressure during off-peak heating operation.

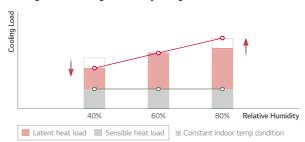
#### Increased indoor comfort

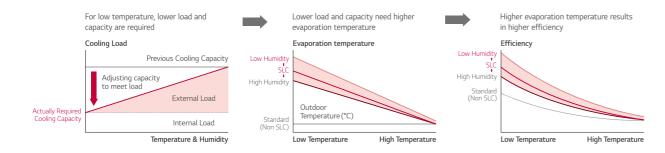
Operation under the revised weather conditions before changing conditions impact indoor comfort.

#### Cooling load according to temperature change



#### Cooling load according to humidity change





# **Energy Savings with Dual Sensing Control**

# Temperature & Humidity

# **Energy Consumption in Cooling Season**

Dual sensing SLC control can save 6% more energy compared to SLC. So dual sensing control is more efficient than SLC.

# Cooling Efficiency MULTI V 5 SLC MULTI V 5 Dual Sensing SLC

Outdoor air temperature

#### $\ensuremath{\mathbb{X}}$ This energy simulation was performed in LG internally based on 16HP model.

# Power Consumption in Cooling Season

Yearly Power Input (kWh) - ODU

OAT	MV4 (Fixed)	MV5 SLC	MV5 Dual SLC
31 ~	17	15	13
29 ~ 31	91	73	62
27 ~ 29	183	136	124
25 ~ 27	243	170	165
23 ~ 25	155	110	109
Total	690 (137%)	503 (100%)	474 (94%)

6% more eneray savina compared to SLC

# **Comfort Cooling**

#### Increased indoor comfort & enhanced operating efficiency

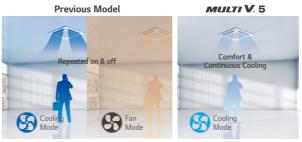
MULTI V 5's comfort control algorithm monitors the outdoor air temperature and humidity conditions. When changing weather conditions are deteriorating and there is a high potential the indoor unit's load will remain stable or may increase, comfort cooling delays or abandons raising the target superheat as the room temperature approaches set-point. When changing weather conditions are favorable to raising target superheat, target superheat is moderated.

#### What are the benefits?

With comfort cooling turned on, the discharged air temperature is controlled. When the IDU controller reduces the fan speed, the potential for cold air falling on occupants located under the cassette IDU or supply air registers is reduced.

# **Enhanced operating efficiency**

Raising superheat reduces refrigerant volume flowing through the coil.



# Preventing cold draft & repeated turn On / Off

— *мицті* V. 5

- - Previous Mode

# **Intelligent Defrost**

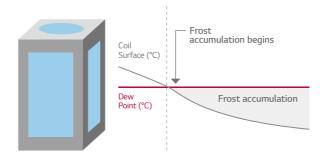
#### Increased heating run-hours

MULTI V has provided an intelligent defrost algorithm and settings based on current outdoor ambient temperature. With the addition of the outdoor air humidity sensor, MULTI V 5 Intelligent Defrost just got smarter.

#### What are the benefits?

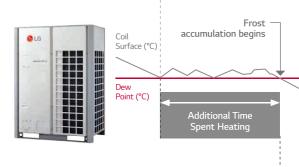
The Intelligent Defrost algorithm increases the VRF system's heating run-hours and reduces the number of defrost cycles required to maintain optimum heating performance irrelevant of the mode and method of defrost selected.

# Conventional Defrost



# Increased heating operation time per day: Up to 17% LG Internal Test result, Test condition (MULTI V 5 vs MULTI V IV, 22HP)

# LG Intelligent Defrost / Smart Heating



**OUTDOOR UNITS KEY FEATURES** 032 I 033

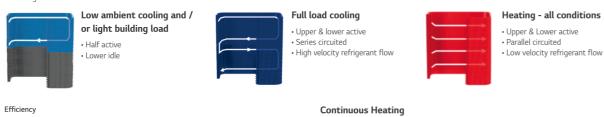
# Variable Path Heat Exchanger

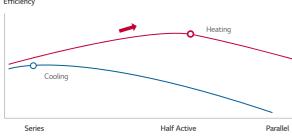
# Optimized system efficiency & continuous heating

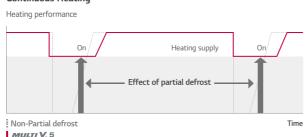
This split coil feature makes it possible for MULTI V 5 to provide continuous heating during defrost. The split coil and valve arrangement also makes it possible for the MULTI V 5 to change the flow path of refrigerant through one of the two coils only, or through both coils in either a series or a parallel arrangement.

## What are the benefits?

Optimizes system efficiency regardless of operating modes as ambient weather conditions change. Customizes the used area of the outdoor unit's heat







# **Active Refrigerant Control**

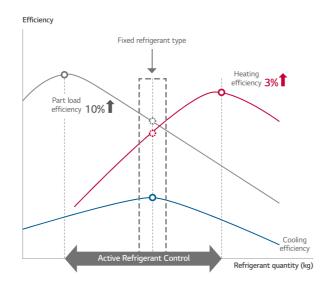
# Stable operation & sustaining most efficient operation

MULTI V 5 active refrigerant control algorithm goal is to minimize the amount of refrigerant in circulation. The lower the volume in circulation, the lower the cost to move it around the system and the higher the stability of the refrigeration cycle.

# What are the benefits?

Widens the ambient temperature range at which stable operation occurs. Sustains most efficient system operation regardless of outdoor weather conditions, operating mode, or building load.





# **HiPOR™**

# Advanced compressor reliability & efficiency

HiPOR™ is an LG trademark that stands for High Pressure Oil Return. It consists of an oil separator, oil drain line between the separator and the compressor. HiPOR™ technology enables oil to return directly into the compressor, instead of returning through the refrigerant suction pipe.

#### What are the benefits?

Maximizes reliability and efficiency of the compressor



- . I G Internal Test result
- Test condition 15Hz Rating Condition : Tc = 37.9C  $^{\circ}$  , Te : 7.2  $^{\circ}\text{C}$

# **Smart Oil Management**

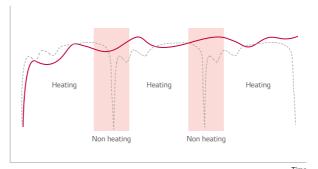
#### Energy saving, enhanced heating & increased compressor

MULTI V 5 performs oil return when needed under normal operating conditions. An oil level sensor is provided in every LG VRF compressor. If the sensor indicates the compressor oil level is low, the main system processor is notified that an oil return cycle is necessary. LG's unique oil level measuring sensor actively monitors the oil level in each compressor.

## What are the benefits?

Energy savings: fewer oil return cycles eliminate unnecessary energy consumption. Increases system heating run-time during winter operation.

# Heating performance



Timed oil return logic (Non-oil Sensor)

# Increased heating operation time per day: Up to 12%

- LG Internal Test result,
- Test condition
- without oil level sensor : every 8 hour oil recovery operation
- with oil level sensor : non oil recovery operation

# Smart Oil Return



# **Auto Oil Balancing**



Oil Level Sensor

OUTDOOR UNITS KEY FEATURES

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# **Corrosion Resistance Black Fin**

# Increased heating performance

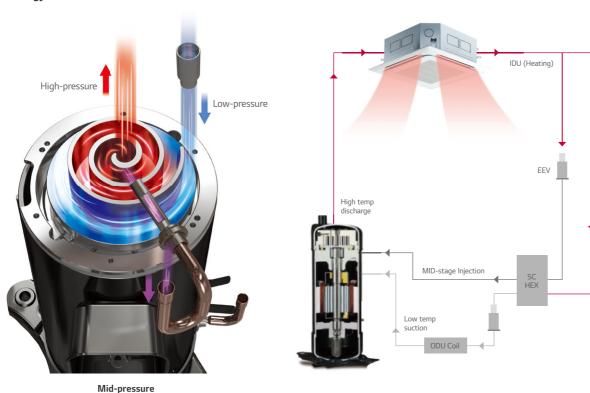
**Sub-cooling & Vapor Injection** 

MULTI V 5 is equipped with advanced sub-cooler and vapor injection control system. The sub-cooler algorithm sub-cools liquid refrigerant just enough so that it can travel to the farthest IDU in the system operating in cooling mode without changing state. In all cases, the vapor injection increases the compressors cycle efficiency and reduces operating cost.

## What are the benefits?

Provides stable refrigeration cycle operation over a wide range of outdoor ambient operating conditions. Increases compressor efficiency when compared to systems without vapor injection technology.

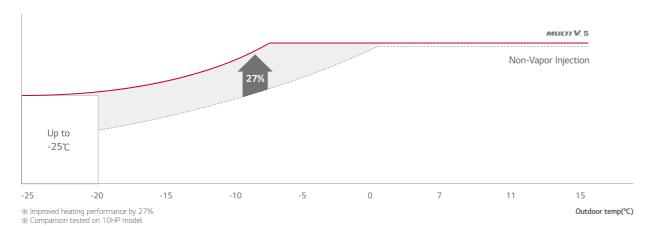
#### **Technology Mechanism**



#### **Performance Comparison**

(Vapor injection port)

Heating performance



# Improved durability

LG Corrosion Resistance solution passed ISO 21207 accelerated corrosion test conducted by an independent test organization and the result has been certified by prestigious global certification organization, TUV.

#### What are the benefits?

This improvement in durability prolongs the product's lifespan and lowers both the operational and maintenance costs.



# SST (Salt Spray Test) Test Process



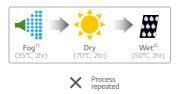
Test process is conducted according to ISO 9227.

1) Salty water concentration: NaCl aqueous solution (5%)

# Test Result (5% Area of defects compared to initial) 1,950 hr 1,000 hr 95% Gold Fin Black Fin 100% copper material to prevent corrosion & refrigerant

leakage

# Test Process



% Test process is conducted according to ISO 14933. 1) Salty water concentration: NaCl aqueous solution (5% & Dry condition changed: 60°C, 4hr → 70°C, 2hr 2) Deionized water

# Test Result (5% Area of defects compared to initial) 1,300 hr 500 hr 160% Gold Fin Black Fin

#### 100% copper material to prevent corrosion & refrigerant leakage

# **Biomimetic Fan**

# Maximized performance

The biomimetic technology-based fans, extended shroud of MULTI V 5 allows more high static pressure and helps fans to blow higher air volume for efficient operation. With wider air guide, discharged air current is stabilized and noise level is reduced.

# What are the benefits?

Based on the biomimetic technology, the fans of MULTI V 5 increased air flow rate by 10% in comparison to previous model and reduced its power consumption up to 20% when compared with the fan blade design on MULTI V IV. This eventually results in maximized performance with large capacity.



OUTDOOR UNITS KEY FEATURES 036 1 037

# **One Unified Model**

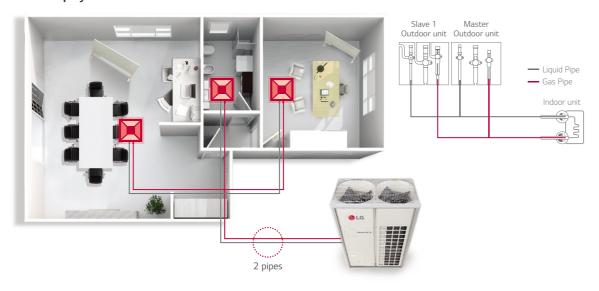
# Heat pump / Heat recovery with one platform

LG MULTI V 5 satisfies users' various needs with just one platform.

# What are the benefits?

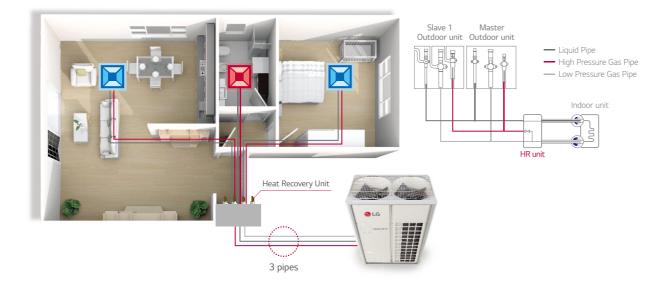
MULTI V 5 allows the building previously installed with Heat Pump system to switch to the Heat Recovery system (by adding HR boxes and a third pipe) for changing purpose of the building or remodeling reasons via simple piping construction.

# **Heat Pump System**





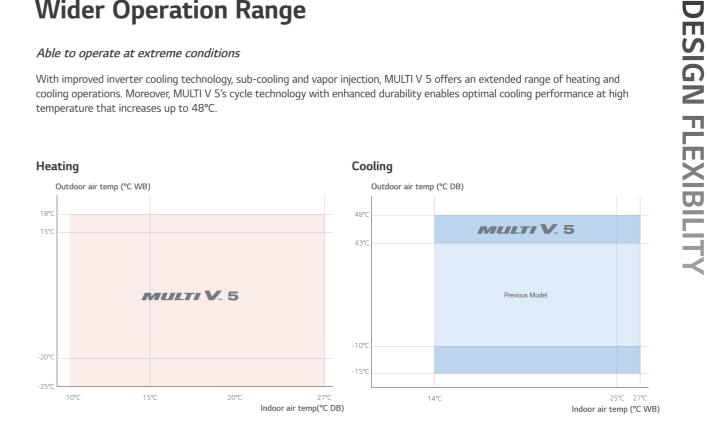
# **Heat Recovery System**



# **Wider Operation Range**

# Able to operate at extreme conditions

With improved inverter cooling technology, sub-cooling and vapor injection, MULTI V 5 offers an extended range of heating and cooling operations. Moreover, MULTI V 5's cycle technology with enhanced durability enables optimal cooling performance at high temperature that increases up to 48°C.



OUTDOOR UNITS KEY FEATURES 038 | 039

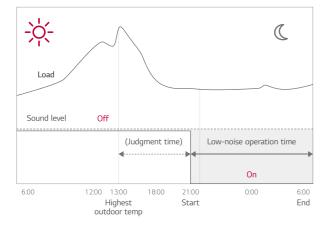
**TECHNICAL** 

# **Low-Noise Operation**

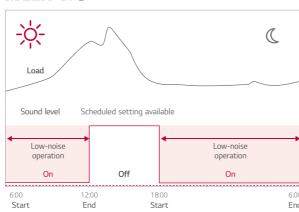
#### For noise sensitive environment

The Low-Noise Operation of MULTI V 5 can function regardless of the time at the noise sensitive areas.

#### **Previous Model**



# **MULTI V.** 5



# Simple Test Run via LGMV

# Increased overall efficiency in installation

With Mobile LGMV of MULTI V 5, fast and accurate auto test run can be executed and the professional installer running the test can receive test results via email, which shortens installation hours and increases overall efficiency in installation processes.

# Previous



# **MULTI V. 5**



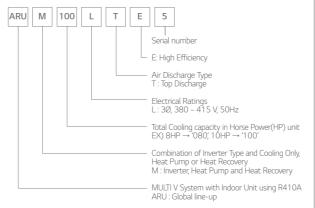
# **LGMV**



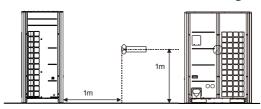




# Nomenclature



# Position of Sound Pressure Level Measuring

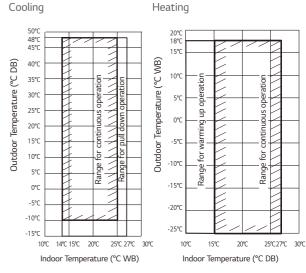


- Data is valid at free field condition
- Data is valid at nominal operating condition
- Sound level will vary depending on a range of factors such as the construction (Acoustic absorption coefficient) of particular room in which the equipment is installed
- Sound level can be increased in static pressure mode or used air guide.

#### **Outdoor Units Function**

Category	Functions	MULTI V 5
	Variable Path of Outdoor Unit HEX	0
	HiPOR™ (High Pressure Oil Return)	0
Key Refrigerant Components	Humidity Sensor	0
Components	Corrosion Resistance Black Fin	0
	Oil Sensor	0
	Dual Sensing	0
	Low Noise Operation	0
	Hgih Static Mode of Outdoor Unit Fan	0
	Partial Defrosting	0
Useful Function	Auto Dust Removal of Outdoor Unit (Fan reverse rotation)	0
	Indoor Cooling Comfort Mode Based Outdoor Temperature	0
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	0
	Outdoor Unit Control Refer to Humidity	0
	Defrost / Deicing	0
	High Pressure Switch	0
	Phase Protection	0
Reliability	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	0
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
Installation	Refrigerant Charging Kit	PRAC1
PDI (Power	Standard	PPWRDB000
Distribution Indicator)	Premium	PQNUD1S40
Cool / Heat Selector		PRDSBM
Low Ambient Kit		PRVC2
IO Module (ODU Dry 0	Contact)	PVDSMN000
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	PLGMVW100

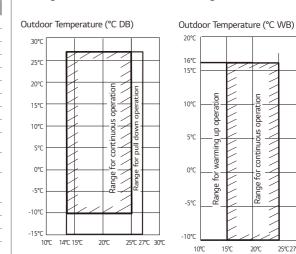
# Cooling / Heating Operation



These figures assume the following operating conditions:

- Equivalent piping length: 7.5m Level difference: 0m
- If the relative humidity is too high, cooling capacity can be decreased by the sensible
- 3. Warming up operation means that the outdoor unit operates to reach the range of continuous operating, however it may not operate continuously due to safety or protection logic

# Simultaneous Cooling / Heating Operation



# Indoor Temperature (°C WB)

- I. These figures assume the following operating conditions
- Equivalent piping length : 7.5m Level difference : 0m
- 2. Range of pull down operation:

  If the relative humidity is too high, cooling capacity can be decreased by the sensible

Indoor Temperature (°C DB)

**OUTDOOR UNITS KEY FEATURES** OUTDOOR UNITS TECHNICAL DATA 040 I 041 1 Leakage test hole (Side)

Wire routing hole (Bottom)

Pipe routing hole (Front)

Power cord routing hole (Front)

5 Pipe routing hole (Bottom)

7 Wire routing hole (Front)

3 Power cord routing hole (Bottom) 2-Ø50

[Unit:mm]

2-Ø22.2

2-Ø45

2-Ø30

2-Ø66, Ø53.88

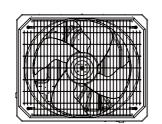
ARUM140LTE5 / ARUM160LTE5 / ARUM180LTE5 / ARUM200LTE5 /

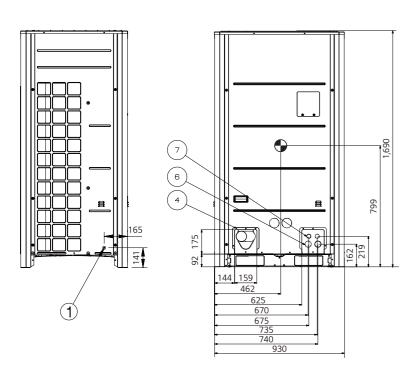
# 2-Ø66, Ø53.88 6 Power cord routing hole (Front) 2-Ø45 7 Wire routing hole (Front) 2-Ø30

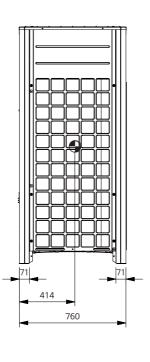
[Unit:mm]

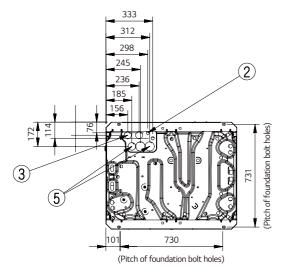
# ARUM080LTE5 / ARUM100LTE5 / ARUM120LTE5



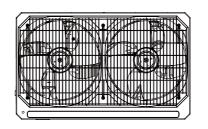


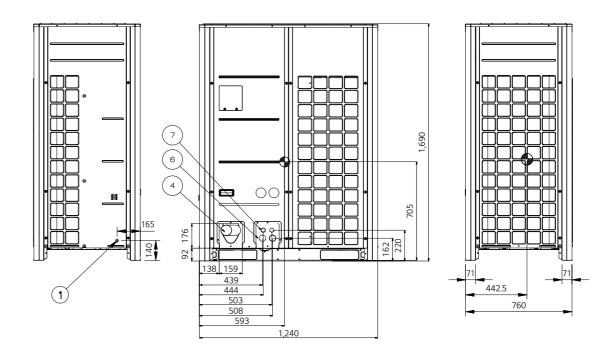


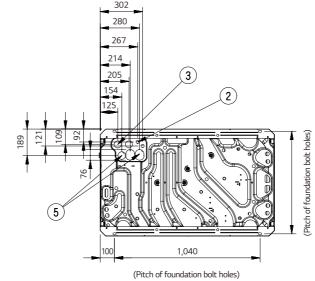












OUTDOOR UNITS

# Q1 What are the differences between MULTI V IV and MULTI V 5?

**A1** 

Cate	gory	MULTI V IV H/P (ARUN***LTE4)	MULTI V 5 H/P & H/R (ARUM***LTE5)		
Vapor Ir	njection	0	0		
HiPC	DR™	0	0		
Smart Oil Control	(Oil Level Sensor)	0	0		
Active Refrige	erant Control	0	0		
Variable Heat Ex	changer Circuit	0	0		
Continuou	s Heating	0	0		
Smart Loa	d Control	0	0		
Dual sensing (H	umidity Sensor)	-	0		
Comfort	Cooling	0	0		
Black	k Fin	-	0		
Maximum Capacit	y (1 Unit / 4 Unit)	20 HP / 80 HP	20 HP / 80 HP		
Height Di (ODU ~ IDU /		110m / 40m	110m / 40m		
Cooling Operating	Range (OAT, °CDB)	-10 ~ 43	-15 ~ 48		
Heating Operating I	Range (OAT, °CWB)	-25 ~ 18	-25 ~ 18		
Combination ratio	1 Unit	50 ~ 200%	50 ~ 200%		
	2 Unit	50 ~ 160%	50 ~ 160%		
of IDU -	3 or 4 Units	50 ~ 130%	50 ~ 130%		

# Q2 Can MULTI V 5 ODU be connected with the 2 series indoor unit?

A2 Yes, MULTI V 5 ODU can be connected with the 2 series indoor unit. In this case, the ODU DIP Switch No.3 should be "OFF" which is default setting. Refer to the below table.

ODU	IDU	Compatibility	ODU DIP Switch No. 3	If dip switch setting is not correct	Ref.
	Gen. 2 (ARNU*2)	0	Must be OFF (factory default)	Can not communicate between Indoor & Outdoor unit (System will not be operated)	
MULTI V IV	Gen. 4 (ARNU*4)	0	Must be ON to enable gen. 4 functions	When Dip Switch No. 3 is OFF, System can be operated, but some function of Gen. 4 is not available	
MOLITV 3	Gen. 2 + Gen. 4	0	Must be OFF (factory default)	When Dip Switch No. 3 is ON, Can not communicate between Gen. 2 Indoor & Outdoor unit (Gen 2 units are not operated), only Gen 4 Units are operated.	Some functions of Gen.4 are not available

※ ○ : Applied. - : Not Applied

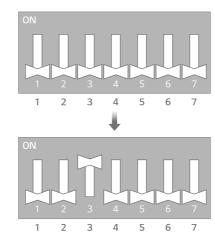
# ODU dip switch setting procedure (No.3)

ODU main PCB dip switch is all "OFF" at default state

- (1) Check and make sure that all connected indoor units are 4 series. (ARNU\*\*\*\*\*4.)
- (2) Change Dip switch No. 3 from OFF  $\rightarrow$  ON
- (3) Push the reset button.

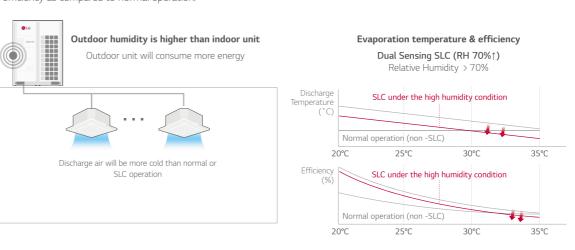
Dip Switch



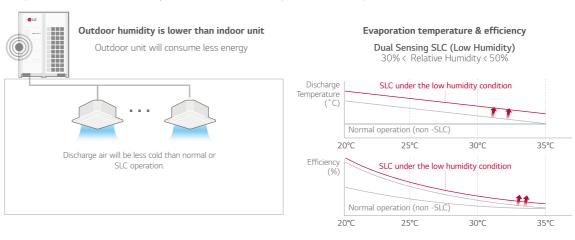


# Q3 How does MULTI V 5 operate when humidity reference of the dual sensing SLC is that of the outdoor?

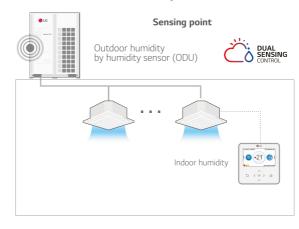
A3 During dual sensing SLC, outdoor unit changes target pressure of the system referring to temperature and humidity in cooling mode. - When the humidity of outdoor side is higher than that of indoor side, outdoor unit will lower target pressure to remove humidity, thus outdoor unit will consume more energy and indoor will be more cooled compared to SLC operation but would have higher efficiency as compared to normal operation.



- When the humidity of outdoor side is lower than that of indoor side, outdoor unit will rise target pressure to save energy and keep comfort, but indoor humidity will be less removed compared to normal operation.



To maximize comfort and energy efficiency, the outdoor unit's humidity sensing can be turned off or a standard remote control can be installed to sense indoor humidity.



#### SLC Setting

CASE 1. Dual Sensing SLC with Outdoor humidity sensor in ODU Setting



CASE 2. Dual Sensing SLC with Indoor humidity sensor in New Standard R/C setting (PREMTB100)

Function	Back OK OK
Comfort Cooling	< Step 1 >
ODU Refrigerant Noise Reduct	ion < Step 0 >
Defrost Mode	< Step 0 >
Smart Load Control	Off >

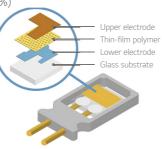
\* User can turn off humidity control in ODU Setting (humidity reference) <Setting summary> ODU DIP-SW01 #5 On > Func > Fn16 > Off

**OUTDOOR UNITS Q&A** 

# **Q4** What is the principle and accuracy of humidity sensor?

A4 Total Tolerance (%) = Sensor measurement tolerance (%) + Location of sensor tolerance (%)

The capacitive measurement principle established and proved itself as a standard in the past. For this principle, the sensor element is built out of a capacitor. The dielectric is a polymer which absorbs or releases water proportional to the relative environmental humidity, and thus changes the capacitance of the capacitor. This change in capacitance can be measured by an electronic circuit. For humidity sensors with CMOSens® technology, a "micro-machined" finger electrode system with different protective and polymer cover layers forms the capacitance for the sensor chip, and, in addition to providing the sensor property, simultaneously protects the sensor from interference in ways previously not achieved.

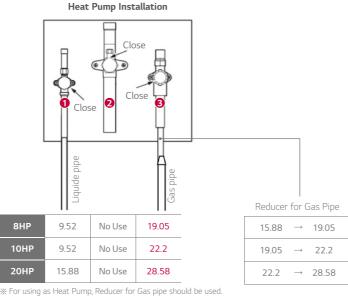


Model	Humidity Sensor of Outdoor	Humidity Sensor of R/Controller
Size (mm)	3 x 3 x 1.1	2.5 x 2.5 x 0.9
Supply voltage range	2.1 to 3.6 V	2.4 to 5.5 V
RH operating range	0 ~ 100% RH	0 ~ 100% RH
T operating range	-40 to +125°C (-40 to +257°F)	-40 to +125°C (-40 to +257°F)
RH response time	8 sec (tau 63%)	8 sec (tau 63%)

# **Q5** What is difference in refrigerant piping connection between heat pump and heat recovery?

A5 From MULTI V 5, Low pressure gas pipe in heat pump operation changes to high pressure gas pipe in heat recovery operation due to internal cycle. So for heat pump cycle, no. 1, 3 pipe should be connected and for heat recovery operation, No. 1, 2, 3 pipe is connected. (For the heat pump operation, DO NOT connect No.2 pipe)

# Heat Recovery Installation 9.52 15.88 19.05 9.52 22.2 19.05 15.88 28.58 22.2



 $\ensuremath{\mathbb{X}}$  For using as Heat Pump, Reducer for Gas pipe should be used. Reducer is included in outdoor unit.

# **Other Questions**

Item	Question	Answer
Fan	The static pressure of MULTI V 5 is Max 8 mmAq as MULTI V IV??	Yes, the static pressure of MULTI V 5 is the same as MULTI V IV.
Compressor	Is the limitation of Compressor max Hz applied by the capacity of outdoor unit?	No, the limitation of comp Hz is not applied for default. But, it can be set by option for limitation of max Hz (or current).
4 Way V/V	The usage of main & sub 4 way valve for MULTI V 5?	MULTI V 5 has the function of both H/P and H/R by one unit. Main valve has a function to change the operation mode. (Cooling $\leftrightarrow$ Heating) Sub. Valve has a functions to change the product type (H/P $\leftrightarrow$ H/R)
VI	In case of vapor injection, how much is the middle pressure?	The optimal middle pressure for vapor injection is 1.2 $P_s$ . $P_s$ : Suction pressure of compressor
VI	By how much is heating capacity increased by vapor injection?	Generally, the heating capacity is increased up to 15 ~ 20%.
Humidity Sensor	Where is Indoor Humidity sensor?	It is placed inside of the RS3 remote controller.
Remote Controller	Does remote controller show the humidity information (Status) as well?	Yes. It shows the current humidity information on screen. (for RS3 Only) But has no function to control the humidity
Remote Controller	Is it possible to connect the local humidity sensor with Remote controller (RS3)?	No. All of RS3 remote controller can not be connected with local humidity sensor.
SLC	Does dual sensing SLC function control the humidity ratio?	No. There is no control of humidity ratio.
SLC	Is SLC fully used on Eurovent? Isn't humidity fixed for the test? What about AHRI?	Eurovent (RH 47%) and AHRI (RH 51%) have fixed humidity test condition.
Comfort Cooling	Why is not the comfort heating applied in product?	Comfort cooling need super heating controlled and Comfort heating need sub cooling controlled. In case of controlling EEV for sub cooling, noise and stable operation may be affected and critical.
Installation	Does the IDU – Central controller direct connection for communication cable is possible? (Flat connection)	No, it is not possible.

**OUTDOOR UNITS Q&A** 046 I 047



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Check ongoing validity of certification: www.eurovent-certification.com

	НР		8	10	12	14
	Combination Unit		ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5
Model Name	Independent Unit		ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5
	Cooling (Rated)	kW	22.4	28.0	33.6	39.2
Capacity	Heating (Rated)	kW	22.4	28.0	33.6	39.2
	Heating (Max)	kW	25.2	31.5	37.8	44.1
	Cooling (Rated)	kW	7.02	9.30	12.01	12.98
Input	Heating (Rated)	kW	5.63	6.45	8.00	8.85
EER			3.19	3.01	2.80	3.02
SEER			7.90	7.80	7.71	8.22
COP	Rated Capacity		3.98	4.34	4.20	4.43
SCOP			4.36	4.39	4.84	4.97
Exterior	Color		Morning Gray / Dawn Gray			
	RAL Code		RAL 7030 / RAL 7037			
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,200 × 1	5,300 × 1	5,300 × 1	5,300 × 1
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	CC	3,900	3,900	3,900	3,900
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
_	Motor Output x Number	W x No.	1,200 × 1	1,200 × 1	1,200 × 1	900 × 2
Fan	Air Flow Rate (High)	m³/min x No.	240 × 1	240 × 1	240 × 1	320 × 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
Pipe Connections	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)	Ø12.7 (1/2)
for Heat	Low Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)
Pipe Connections	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)	Ø12.7 (1/2)
for Heat Pump	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Dimensions (W	x H x D)	mm x No.	(930 × 1,690 × 760) × 1	(930 × 1,690 × 760) × 1	(930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) × 1
Dimensions (W	x H x D) - Shipping	mm x No.	(960 × 1,825 × 796) × 1	(960 × 1,825 × 796) × 1	(960 × 1,825 × 796) × 1	(1,280 × 1,825 × 796) × 1
Net Weight		kg x No.	198 × 1	215 × 1	215 × 1	237 × 1
Shipping Weight	:	kg x No.	208 × 1	225 × 1	225 × 1	250 × 1
Sound Pressure	Cooling	dB(A)	58.0	58.0	59.0	60.0
Level	Heating	dB(A)	59.0	59.0	60.0	61.0
Sound	Cooling	dB(A)	79.0	80.0	81.0	82.0
Power Level	Heating	dB(A)	79.0	80.0	83.0	82.0
Communication	Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5			
	Refrigerant Name		R410A	R410A	R410A	R410A
Pofrigorant	Precharged Amount in Factory	kg	7.5	9.5	9.5	13.5
Refrigerant	t-CO <sub>2</sub> eq		15.656	19.831	19.831	28.181
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maxi	mum Connectable Indoor	r Units 1)	13 (20)	16 (25)	20 (30)	23 (35)

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.

# ARUM160LTE5 / ARUM180LTE5 ARUM200LTE5 / ARUM221LTE5







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	HP		16	18	20	22
	Combination Unit		ARUM160LTE5	ARUM180LTE5	ARUM200LTE5	ARUM221LTE5
Model Name	Independent Unit		ARUM160LTE5	ARUM180LTE5	ARUM200LTE5	ARUM120LTE5 ARUM100LTE5
	Cooling (Rated)	kW	44.8	50.4	56.0	61.6
Capacity	Heating (Rated)	kW	44.8	50.4	56.0	61.6
	Heating (Max)	kW	50.4	56.7	63.0	69.3
	Cooling (Rated)	kW	17.23	14.82	18.06	21.31
Input	Heating (Rated)	kW	10.59	10.90	13.02	14.45
EER			2.60	3.40	3.10	2.89
SEER			7.74	8.50	8.17	7.76
COP	Rated Capacity		4.23	4.62	4.30	4.26
SCOP			5.30	4.67	4.98	4.61
Exterior	Color		Morning Gray / Dawn Gray			
	RAL Code		RAL 7030 / RAL 7037			
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	5,300 × 1	(5,300 × 1) + (4,200 × 1)	(5,300 × 1) + (4,200 × 1)	5,300 × 2
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	СС	3,900	5,200	5,200	7,800
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	900 × 2	900 × 2	900 × 2	(1200 × 1) + (1,200 × 1)
Fan	Air Flow Rate (High)	m³/min x No.	320 × 1	320 × 1	320 × 1	$(240 \times 1) + (240 \times 1)$
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Low Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
for Heat Recovery	High Pressure Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
Pipe	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
for Heat Pump	·		` ′	(1,240 × 1,690 × 760)	. ,	((930 × 1,690 × 760)
Dimensions (W	к н x D)	mm x No.	× 1	× 1	× 1	× 1) + ((930 × 1,690 × 760) × 1)
Dimensions (W	к H x D) - Shipping	mm x No.	(1,280 × 1,825 × 796) × 1	(1,280 × 1,825 × 796) × 1	(1,280 × 1,825 × 796) × 1	((960 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)
Net Weight		kg x No.	237 × 1	300 × 1	300 × 1	(215 × 1) + (215 × 1)
Shipping Weight		kg x No.	250 × 1	312 × 1	312 × 1	(225 × 1) + (225 × 1)
Sound Pressure	Cooling	dB(A)	60.5	61.0	62.0	61.5
Level	Heating	dB(A)	61.5	62.0	64.5	63.0
Sound	Cooling	dB(A)	86.0	87.0	87.0	84.0
Power Level	Heating	dB(A)	86.0	87.0	90.0	85.0
Communication		mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5			
Refrigerant	Refrigerant Name		R410A	R410A	R410A	R410A
	Precharged Amount in Factory	kg	13.5	16.0	16.0	19.0
	t-CO <sub>2</sub> eq		28.181	33.400	33.400	39.663
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz		380-400-415, 3, 50/60		
		· Units 1)	26 (40)	29 (45)	32 (50)	35 (44)

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.
2) Applying to 16, 18, 20HP outdoor units only.



	HP		24	26	28	30
	Combination Unit		ARUM241LTE5	ARUM261LTE5	ARUM280LTE5	ARUM300LTE5
Model Name	Independent Unit		ARUM120LTE5 ARUM120LTE5	ARUM140LTE5 ARUM120LTE5	ARUM160LTE5 ARUM120LTE5	ARUM180LTE5 ARUM120LTE5
	Cooling (Rated)	kW	67.2	72.8	78.4	84.0
Capacity	Heating (Rated)	kW	67.2	72.8	78.4	84.0
	Heating (Max)	kW	75.6	81.9	88.2	94.5
	Cooling (Rated)	kW	24.02	24.99	29.24	26.83
Input	Heating (Rated)	kW	16.00	16.85	18.59	18.90
EER			2.80	2.91	2.68	3.13
SEER			7.71	7.97	7.72	8.16
COP	Rated Capacity		4.20	4.32	4.22	4.44
SCOP			4.84	4.91	5.08	4.73
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
Heat	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
C	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	(Inverter) x 3
Compressor	Motor Output x Number	W x No.	5,300 × 2	5,300 × 2	5,300 × 2	(5,300 × 2) + (4,200 × 1)
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	CC	7,800	7,800	7,800	9,100
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
Fan	Motor Output x Number	W x No.	(1,200 × 1) + (1,200 × 1)	(900 × 2) + (1,200 × 1)	(900 × 2) + (1,200 × 1)	(900 × 2) + (1,200 × 1)
i aii	Air Flow Rate (High)	m³/min x No.	$(240 \times 1) + (240 \times 1)$	$(320 \times 1) + (240 \times 1)$	$(320 \times 1) + (240 \times 1)$	$(320 \times 1) + (240 \times 1)$
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
Pipe Connections	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
for Heat	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Pipe	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Dimensions (W >	(H x D)	mm x No.		((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)		
Dimensions (W x	( H x D) - Shipping	mm x No.		((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)		
Net Weight		kg x No.	(215 × 1) + (215 × 1)	$(237 \times 1) + (215 \times 1)$	(237 × 1) + (215 × 1)	$(300 \times 1) + (215 \times 1)$
Shipping Weight		kg x No.	(225 × 1) + (225 × 1)	(250 × 1) + (225 × 1)	(250 × 1) + (225 × 1)	$(312 \times 1) + (225 \times 1)$
Sound Pressure	Cooling	dB(A)	62.0	63.0	63.0	63.0
Level	Heating	dB(A)	63.0	64.0	64.0	64.0
Sound	Cooling	dB(A)	84.0	85.0	87.0	88.0
Power Level	Heating	dB(A)	86.0	86.0	0.88	0.88
Communication		mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name		R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	19.0	23.0	23.0	25.5
Remgerant	t-CO <sub>2</sub> eq		39.663	48.013	48.013	53.231
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maxin	mum Connectable Indoor	Units 1)	39 (48)	42 (52)	45 (56)	49 (60)

1) Maximum numbers are prepared base	ed on assumption that all 2.2kW indoor units ar	are connected. The numbers in p	parentheses means maximum connectal	ble indoor units in accordance with
outdoor units combination (160% ~	200%). The recommended ratio is 130%.			



	HP		32	34	36	38
	Combination Unit		ARUM320LTE5	ARUM340LTE5	ARUM360LTE5	ARUM380LTE5
Model Name	Independent Unit		ARUM200LTE5 ARUM120LTE5	ARUM200LTE5 ARUM140LTE5	ARUM200LTE5 ARUM160LTE5	ARUM200LTE5 ARUM180LTE5
	Cooling (Rated)	kW	89.6	95.2	100.8	106.4
Capacity	Heating (Rated)	kW	89.6	95.2	100.8	106.4
	Heating (Max)	kW	100.8	107.1	113.4	119.7
	Cooling (Rated)	kW	30.07	31.04	35.29	32.88
Input	Heating (Rated)	kW	21.02	21.87	23.61	23.92
EER			2.98	3.07	2.86	3.24
SEER			7.98	8.19	7.97	8.32
COP	Rated Capacity		4.26	4.35	4.27	4.45
SCOP			4.93	4.98	5.11	4.83
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	(Inverter) x 4
Compressor	Motor Output x Number	W x No.	(5,300 × 2) + (4,200 × 1)	(5,300 × 2) + (4,200 × 1)	(5,300 × 2) + (4,200 × 1)	(5,300 × 2) + (4,200 × 2)
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	CC	9,100	9,100	9,100	10,400
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
F	Motor Output x Number	W x No.	(900 × 2) + (1,200 × 1)	900 × 4	900 × 4	900 × 4
Fan	Air Flow Rate (High)	m³/min x No.	$(320 \times 1) + (240 \times 1)$	320 × 2	320 × 2	320 × 2
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W x	(H x D)	mm x No.			((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)	
Dimensions (W x	( H x D) - Shipping	mm x No.			((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)	
Net Weight		kg x No.	$(300 \times 1) + (215 \times 1)$		$(300 \times 1) + (237 \times 1)$	
Shipping Weight		kg x No.	(312 × 1) + (225 × 1)	$(312 \times 1) + (250 \times 1)$	(312 × 1) + (250 × 1)	(312 × 1) + (312 × 1)
Sound Pressure	Cooling	dB(A)	64.0	64.0	64.0	65.0
Level	Heating	dB(A)	66.0	64.0	66.0	66.0
Sound	Cooling	dB(A)	88.0	88.0	90.0	90.0
Power Level	Heating	dB(A)	91.0	91.0	91.0	92.0
Communication (		mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name Precharged Amount		R410A	R410A	R410A	R410A
	in Factory	kg	25.5	29.5	29.5	32.0
Refrigerant	t-CO <sub>2</sub> eq		53.231	61.581	61.581	66.800
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/6
NI	mum Connectable Indoor	Units 1)	52 (64)	55 (64)	58 (64)	61 (64)

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.

OUTDOOR UNITS SPECIFICATIONS 050 I 051

Cooling

t-CO<sub>2</sub>eq

Control

Refrigerant Name Precharged Amount in Factory

Sound

Power Level Heating

Communication Cable

Power Supply

# ARUM400LTE5 / ARUM420LTE5 ARUM440LTE5



	HP		40	42	44
	Combination Unit		ARUM400LTE5	ARUM420LTE5	ARUM440LTE5
Model Name	Independent Unit		ARUM200LTE5 ARUM200LTE5	ARUM180LTE5 ARUM120LTE5 ARUM120LTE5 ARUM120LTE5	ARUM200LTE5 ARUM120LTE5 ARUM120LTE5 ARUM120LTE5
	Cooling (Rated)	kW	112.0	117.6	123.2
Capacity	Heating (Rated)	kW	112.0	117.6	123.2
	Heating (Max)	kW	126.0	132.3	138.6
	Cooling (Rated)	kW	36.12	38.84	42.08
Input	Heating (Rated)	kW	26.04	26.90	29.02
EER			3.10	3.03	2.93
SEER			8.17	8.02	7.90
COP	Rated Capacity		4.30	4.37	4.25
SCOP			4.98	4.76	4.90
	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
Exterior	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number	W x No.	(5,300 × 2) + (4,200 × 2)	(5,300 × 3) + (4,200 × 1)	(5,300 × 3) + (4,200 × 1)
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	СС	10,400	13,000	13,000
	Туре		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	900 × 4	(900 × 2) + (1,200 × 2)	(900 × 2) + (1,200 × 2)
Fan	Air Flow Rate (High)	m³/min x No.	320 × 2	$(320 \times 1) + (240 \times 2)$	$(320 \times 1) + (240 \times 2)$
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
for Heat Recovery	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W	× H × D)	mm x No.	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)
Dimensions (W	x H x D) - Shipping	mm x No.	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)
Net Weight		kg x No.	(300 × 1) + (300 × 1)	(300 × 1) + (215 × 1) + (215 × 1)	(300 × 1) + (215 × 1) + (215 × 1)
Shipping Weight	t	kg x No.	(312 × 1) + (312 × 1)	(312 × 1) + (225 × 1) + (225 × 1)	(312 × 1) + (225 × 1) + (225 × 1)
Sound Pressure	Cooling	dB(A)	65.0	65.0	65.0
Level	Heating	dB(A)	68.0	66.0	67.0
Sound	Cooling	dB(A)	90.0	89.0	89.0
Power Level	Heating	dB(A)	93.0	90.0	91.0
Communication	Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	32.0	35.0	35.0
gerune	t-CO₂eq		66.800	73.063	73.063
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maxi	imum Connectable Indooi	r Units 1)	64	64	64

1) Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected.	. The numbers in parentheses means maximum connectable indoor units in accordance with
outdoor units combination (160% ~ 200%). The recommended ratio is 130%.	

	НР	-	46	48	50
	Combination Unit		ARUM460LTE5	ARUM480LTE5	ARUM500LTE5
Model Name	Independent Unit		ARUM200LTE5 ARUM140LTE5 ARUM120LTE5	ARUM200LTE5 ARUM160LTE5 ARUM120LTE5	ARUM200LTE5 ARUM180LTE5 ARUM120LTE5
	Cooling (Rated)	kW	128.8	134.4	140.0
Capacity	Heating (Rated)	kW	128.8	134.4	140.0
	Heating (Max)	kW	144.9	151.2	157.5
	Cooling (Rated)	kW	43.05	47.30	44.89
Input	Heating (Rated)	kW	29.87	31.61	31.92
EER	, ,		2.99	2.84	3.12
SEER			7.58	7.38	8.16
COP	Rated Capacity		4.31	4.25	4.39
SCOP	1		4.94	5.04	4.83
Exterior	Color RAL Code		Morning Gray / Dawn Gray RAL 7030 / RAL 7037	Morning Gray / Dawn Gray RAL 7030 / RAL 7037	Morning Gray / Dawn Gray RAL 7030 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
Exchanger	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 5
Compressor	Motor Output x Number	W x No.	(5,300 × 3) + (4,200 × 1)	(5,300 × 3) + (4,200 × 1)	(5,300 × 3) + (4,200 × 2)
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	СС	13,000	13,000	14,300
	Туре		Propeller fan	Propeller fan	Propeller fan
For	Motor Output x Number	W x No.	(900 × 4) + (1,200 × 1)	(900 × 4) + (1,200 × 1)	(900 × 4) + (1,200 × 1)
Fan	Air Flow Rate (High)	m³/min x No.	$(320 \times 2) + (240 \times 1)$	$(320 \times 2) + (240 \times 1)$	$(320 \times 2) + (240 \times 1)$
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W	x H x D)	mm x No.	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)
Dimensions (W	x H x D) - Shipping	mm x No.	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)
Net Weight		kg x No.	(300 × 1) + (237 × 1) + (215 × 1)	(300 × 1) + (237 × 1) + (215 × 1)	(300 × 1) + (300 × 1) + (215 × 1)
Shipping Weight	t	kg x No.	(312 × 1) + (250 × 1) + (225 × 1)	(312 × 1) + (250 × 1) + (225 × 1)	(312 × 1) + (312 × 1) + (225 × 1)
Sound Pressure	Cooling	dB(A)	65.0	65.0	66.0
Level	Heating	dB(A)	67.0	67.0	67.0

89.0

91.0

2C × 1.0 ~ 1.5

R410A

39.0

81.413

380-400-415, 3, 50/60

64

Electronic Expansion Valve

dB(A)

mm<sup>2</sup> x No. (VCTF-SB)

Ø, V, Hz

dB(A)

90.0

92.0

2C × 1.0 ~ 1.5

R410A

39.0

81.413

380-400-415, 3, 50/60

64

Electronic Expansion Valve

91.0

92.0

R410A

41.5

86.631

Electronic Expansion Valve

64

380-400-415, 3, 50/60

2C × 1.0 ~ 1.5

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<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.

# ARUM520LTE5 / ARUM540LTE5 ARUM560LTE5



	НР		52	54	56
	Combination Unit		ARUM520LTE5	ARUM540LTE5	ARUM560LTE5
Model Name	Independent Unit		ARUM200LTE5 ARUM200LTE5 ARUM120LTE5 ARUM120LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5 ARUM140LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5 ARUM160LTE5
	Cooling (Rated)	kW	145.6	151.2	156.8
Capacity	Heating (Rated)	kW	145.6	151.2	156.8
cupacity	Heating (Max)	kW	163.8	170.1	176.4
	Cooling (Rated)	kW	48.13	49.10	53.35
Input	Heating (Rated)	kW	34.04	34.89	36.63
EER	r routing (r tacou)		3.03	3.08	2.94
SEER			8.05	7.79	7.67
COP	Rated Capacity		4.28	4.33	4.28
SCOP	nacea capacity		4.95	4.98	5.06
5001	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
Exterior	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
3	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 5	(Inverter) x 5	(Inverter) x 5
Compressor	Motor Output x Number	W x No.	(5,300 × 3) + (4,200 × 2)	(5,300 × 3) + (4,200 × 2)	(5,300 × 3) + (4,200 × 2)
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	СС	14,300	14,300	14,300
	Туре		Propeller fan	Propeller fan	Propeller fan
Fan	Motor Output x Number	W x No.	(900 × 4) + (1,200 × 1)	900 × 6	900 × 6
I dii	Air Flow Rate (High)	m³/min x No.	(320 × 2) + (240 × 1)	320 × 3	320 × 3
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe Connections	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
for Heat	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W	x H x D)	mm x No.	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)
Dimensions (W	x H x D) - Shipping	mm x No.	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)
Net Weight		kg x No.	(300 × 1) + (300 × 1) + (215 × 1)	(300 × 1) + (300 × 1) + (237 × 1)	(300 × 1) + (300 × 1) + (237 × 1)
Shipping Weight	t	kg x No.	(312 × 1) + (312 × 1) + (225 × 1)	(312 × 1) + (312 × 1) + (250 × 1)	(312 × 1) + (312 × 1) + (250 × 1)
Sound Pressure	Cooling	dB(A)	66.0	66.0	66.0
Level	Heating	dB(A)	68.0	67.0	68.0
Sound	Cooling	dB(A)	91.0	91.0	91.0
Power Level	Heating	dB(A)	93.0	93.0	94.0
Communication		mm² x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	41.5	45.5	45.5
	t-CO₂eq		86.631	94.981	94.981
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maxi	imum Connectable Indoor	Units 1)	64	64	64

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.

# ARUM580LTE5 / ARUM600LTE5 ARUM620LTE5



	HP		58	60	62
	Combination Unit		ARUM580LTE5	ARUM600LTE5	ARUM620LTE5
Model Name	Independent Unit		ARUM200LTE5 ARUM200LTE5 ARUM180LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5	ARUM200LTE5 ARUM180LTE5 ARUM120LTE5 ARUM120LTE5
	Cooling (Rated)	kW	162.4	168.0	173.6
Capacity	Heating (Rated)	kW	162.4	168.0	173.6
' '	Heating (Max)	kW	182.7	189.0	195.3
	Cooling (Rated)	kW	50.94	54.18	56.90
nput	Heating (Rated)	kW	36.94	39.06	39.92
EER			3.19	3.10	3.05
SEER			8.27	8.17	8.07
COP	Rated Capacity		4.40	4.30	4.35
SCOP			4.88	4.98	4.83
	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
Exterior	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
Lacitatiget	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 6	(Inverter) x 6	(Inverter) x 6
Compression	Motor Output x	\\/ \\ \\ \\	, ,	,	,
Compressor	Number	W x No.	(5,300 × 3) + (4,200 × 3)	(5,300 × 3) + (4,200 × 3)	(5,300 × 4) + (4,200 × 2)
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	CC	15,600	15,600	18,200
	Туре		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	900 × 6	900 × 6	(900 × 4) + (1,200 × 2)
Fan	Air Flow Rate (High)	m³/min x No.	320 × 3	320 × 3	$(320 \times 2) + (240 \times 2)$
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W)	x H x D)	mm x No.	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) ((1,240 × 1,690 × 760) × 1) ((930 × 1,690 × 760) × 1) ((930 × 1,690 × 760) × 1)
Dimensions (W	x H x D) - Shipping	mm x No.	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) ((1,280 × 1,825 × 796) × 1) ((960 × 1,825 × 796) × 1) ((960 × 1,825 × 796) × 1)
Net Weight		kg x No.	(300 × 1) + (300 × 1) + (300 × 1)	(300 × 1) + (300 × 1) + (300 × 1)	$(300 \times 1) + (300 \times 1) + (215 \times 1) + (215 \times 1)$
Shipping Weight		kg x No.	(312 × 1) + (312 × 1) + (312 × 1)	(312 × 1) + (312 × 1) + (312 × 1)	(312 × 1) + (312 × 1) + (225 × 1) + (225 × 1)
Sound Pressure	Cooling	dB(A)	66.0	67.0	66.0
Level	Heating	dB(A)	69.0	69.0	68.0
Sound	Cooling	dB(A)	92.0	92.0	91.0
Power Level	Heating	dB(A)	94.0	95.0	93.0
Communication	Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name	(10.1.30)	R410A	R410A	R410A
Dofrigores	Precharged Amount in Factory	kg	48.0	48.0	51.0
Refrigerant	t-CO <sub>2</sub> eq		100.200	100.200	106.463
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	CONTROL	Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
		~, , , , , , ,	300 100 113, 3, 30,00	300 100 113, 3, 30,00	300 100 413, 3, 30/00

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.

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	НР		64	66	68
	Combination Unit		ARUM640LTE5	ARUM660LTE5	ARUM680LTE5
Model Name	Independent Unit		ARUM200LTE5 ARUM200LTE5 ARUM120LTE5 ARUM120LTE5 ARUM120LTE5	ARUM200LTE5 ARUM200LTE5 ARUM140LTE5 ARUM140LTE5	ARUM200LTE5 ARUM200LTE5 ARUM160LTE5 ARUM160LTE5
	Cooling (Rated)	kW	179.2	184.8	190.4
Capacity	Heating (Rated)	kW	179.2	184.8	190.4
, ,	Heating (Max)	kW	201.6	207.9	214.2
	Cooling (Rated)	kW	60.14	61.11	65.36
Input	Heating (Rated)	kW	42.04	42.89	44.63
EER	J. ,		2.98	3.02	2.91
SEER			7.98	7.78	7.63
COP	Rated Capacity		4.26	4.31	4.27
SCOP	' í		4.93	4.95	5.02
	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
Exterior	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
3	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 6	(Inverter) x 6	(Inverter) x 6
Compressor	Motor Output x Number	W x No.	(5,300 × 4) + (4,200 × 2)	(5,300 × 4) + (4,200 × 2)	(5,300 × 4) + (4,200 × 2)
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	СС	18,200	18,200	18,200
	Туре		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	(900 × 4) + (1,200 × 2)	(900 × 6) + (1,200 × 1)	(900 × 6) + (1,200 × 1)
Fan	Air Flow Rate (High)	m³/min x No.	$(320 \times 2) + (240 \times 2)$	$(320 \times 3) + (240 \times 1)$	$(320 \times 3) + (240 \times 1)$
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
for Heat	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Recovery Pipe	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
for Heat Pump  Dimensions (W	'	mm x No.	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)
Dimensions (W	x H x D) - Shipping	mm x No.	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)
Net Weight		kg x No.	(300 × 1) + (300 × 1) + (215 × 1) + (215 × 1)	(300 × 1) + (300 × 1) + (237 × 1) + (215 × 1)	(300 × 1) + (300 × 1) + (237 × 1) + (215 × 1)
Shipping Weight		kg x No.	(312 × 1) + (312 × 1) + (225 × 1) + (225 × 1)	(312 × 1) + (312 × 1) + (250 × 1) + (225 × 1)	(312 × 1) + (312 × 1) + (250 × 1) + (225 × 1)
Sound Pressure	Cooling	dB(A)	67.0	67.0	67.0
Level	Heating	dB(A)	69.0	69.0	69.0
Sound	Cooling	dB(A)	91.0	91.0	92.0
Power Level	Heating	dB(A)	94.0	94.0	94.0
Communication	Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	51.0	55.0	55.0
gerune	t-CO <sub>2</sub> eq		106.463	114.813	114.813
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maxi	mum Connectable Indoor	r Units 1)	64	64	64

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.



	HP		70	72	74
	Combination Unit		ARUM700LTE5	ARUM720LTE5	ARUM740LTE5
Model Name	Independent Unit		ARUM200LTE5 ARUM200LTE5 ARUM180LTE5 ARUM120LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5 ARUM120LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5 ARUM140LTE5
	Cooling (Rated)	kW	196.0	201.6	207.2
Capacity		kW	196.0	201.6	207.2
	Heating (Rated)				
	Heating (Max)	kW	220.5 62.95	226.8 66.19	233.1 67.16
Input	Cooling (Rated)				
EED	Heating (Rated)	kW	44.94	47.06 3.05	47.91 3.09
EER			3.11		
SEER COP	Data d Canasita		8.16	8.08	7.91
SCOP	Rated Capacity		4.36 4.87	4.28 4.96	4.32 4.98
SCOP	Color				
Exterior	RAL Code		Morning Gray / Dawn Gray RAL 7030 / RAL 7037	Morning Gray / Dawn Gray RAL 7030 / RAL 7037	Morning Gray / Dawn Gray RAL 7030 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 7	(Inverter) x 7	(Inverter) x 7
Compressor	Motor Output x Number	W x No.	(5,300 × 4) + (4,200 × 3)	(5,300 × 4) + (4,200 × 3)	(5,300 × 4) + (4,200 × 3)
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	СС	19,500	19,500	19,500
	Type Motor Output x		Propeller fan	Propeller fan	Propeller fan
	Number	W x No.	$(900 \times 6) + (1,200 \times 1)$	$(900 \times 6) + (1,200 \times 1)$	(900 × 8)
Fan	Air Flow Rate (High)	m³/min x No.	$(320 \times 3) + (240 \times 1)$	$(320 \times 3) + (240 \times 1)$	(320 × 4)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Pipe	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
for Heat Pump Dimensions (W >		mm x No.	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((930 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) ((1,240 × 1,690 × 760) × 1) ((1,240 × 1,690 × 760) × 1) ((1,240 × 1,690 × 760) × 1
Dimensions (W >	к H x D) - Shipping	mm x No.	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((960 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) ((1,280 × 1,825 × 796) × 1) ((1,280 × 1,825 × 796) × 1) ((1,280 × 1,825 × 796) × 1
Net Weight		kg x No.	(300 × 1) + (300 × 1) + (300 × 1) + (215 × 1)	$(300 \times 1) + (300 \times 1) + (300 \times 1) + (215 \times 1)$	(300 × 1) + (300 × 1) + (300 × 1) + (237 × 1)
Shipping Weight		kg x No.	(312 × 1) + (312 × 1) + (312 × 1) + (225 × 1)	(312 × 1) + (312 × 1) + (312 × 1) + (225 × 1)	(312 × 1) + (312 × 1) + (312 × 1) + (250 × 1)
Sound Pressure	Cooling	dB(A)	67.0	67.0	68.0
Level	Heating	dB(A)	69.0	70.0	69.0
Sound	Cooling	dB(A)	92.0	92.0	92.0
Power Level	Heating	dB(A)	94.0	95.0	95.0
Communication (	Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name	, ,	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	57.5	57.5	61.5
nemgerane	t-CO <sub>2</sub> eq		120.031	120.031	128.381
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
	mum Connectable Indoor		64	64	64

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.

OUTDOOR UNITS SPECIFICATIONS 056 I 057

# ARUM760LTE5 / ARUM780LTE5 ARUM800LTE5



	HP		76	78	80
	Combination Unit		ARUM760LTE5	ARUM780LTE5	ARUM800LTE5
			ARUM200LTE5	ARUM200LTE5	ARUM200LTE5
Model Name	Independent Unit		ARUM200LTE5	ARUM200LTE5	ARUM200LTE5
	independent onic		ARUM200LTE5	ARUM200LTE5	ARUM200LTE5
	0 11 (0 11)		ARUM160LTE5	ARUM180LTE5	ARUM200LTE5
Capacity	Cooling (Rated)	kW	212.8	218.4	224.0
	Heating (Rated)	kW	212.8	218.4	224.0
Heating (Max)		kW	239.4	245.7	252.0
Input	Cooling (Rated)	kW	71.41	69.00	72.24
	Heating (Rated)	kW	49.65	49.96	52.08
EER			2.98	3.17	3.10
SEER			7.77	8.24	8.17
COP	Rated Capacity		4.29	4.37	4.30
SCOP			5.04	4.91	4.98
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 7	(Inverter) x 8	(Inverter) x 8
Compressor	Motor Output x Number	W x No.	(5,300 × 4) + (4,200 × 3)	(5,300 × 4) + (4,200 × 4)	(5,300 × 4) + (4,200 × 4)
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	СС	19,500	20,800	20,800
	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x	W x No.	(900 × 8)	(900 × 8)	(900 × 8)
Fan	Number		, , ,	, ,	, ,
Fall	Air Flow Rate (High)	m³/min x No.	(320 × 4)	(320 × 4)	(320 × 4)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	ТОР	TOP	TOP
Pipe Connections	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
for Heat	Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Pipe	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Dimensions (W )	x H x D)	mm x No.	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1) + ((1,240 × 1,690 × 760) × 1)	((1,240 × 1,690 × 760) × 1) ((1,240 × 1,690 × 760) × 1) ((1,240 × 1,690 × 760) × 1) ((1,240 × 1,690 × 760) × 1)
Dimensions (W )	x H x D) - Shipping	mm x No.	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1) + ((1,280 × 1,825 × 796) × 1)	((1,280 × 1,825 × 796) × 1) ((1,280 × 1,825 × 796) × 1) ((1,280 × 1,825 × 796) × 1) ((1,280 × 1,825 × 796) × 1)
Net Weight		kg x No.	(300 × 1) + (300 × 1) + (300 × 1) + (237 × 1)	$(300 \times 1) + (300 \times 1) + (300 \times 1) + (300 \times 1)$	$(300 \times 1) + (300 \times 1) + (300 \times 1) + (300 \times 1)$
Shipping Weight	t	kg x No.	(312 × 1) + (312 × 1) + (312 × 1) + (250 × 1)	(312 × 1) + (312 × 1) + (312 × 1) + (312 × 1)	(312 × 1) + (312 × 1) + (312 × 1) + (312 × 1)
Sound Pressure		dB(A)	68.0	68.0	68.0
Level	Heating	dB(A)	70.0	70.0	71.0
Sound	Cooling	dB(A)	93.0	93.0	93.0
Power Level	Heating	dB(A)	95.0	95.0	96.0
Communication	Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant Name	(	R410A	R410A	R410A
	Precharged Amount	kg	61.5	64.0	64.0
Refrigerant	in Factory	9			
	t-CO <sub>2</sub> eq		128.381	133.600	133.600
	Control	~	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maxi	imum Connectable Indoor	Units 1)	64	64	64

<sup>1)</sup> Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% – 200%). The recommended ratio is 130%.

- 1. Eurovent Test Condition: For more info regarding program consult www.eurovent-certification.com
- 2. Capacities are based on the following conditions:
- Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
- Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
- Piping Length : Interconnected Pipe Length = 7.5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Om.
- 3. Wiring cable size must comply with the applicable local and national code.
- 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.

# 5. Explanation of Terms

- EER : Energy Efficiency Ratio (Cooling)
- SEER : Seasonal Energy Efficiency Ratio (Refer to Typical Cooling Season)
- COP : Coefficient Of Performance (Heating)
- SCOP : Seasonal Coefficient Of Performance (Refer to Typical Heating Season)
- 6. Due to our policy of innovation some specifications may be changed without notification.
- 7. This product contains Fluorinated greenhouse gases. (R410A, GWP (Global warming potential) = 2,087.5)

**OUTDOOR UNITS SPECIFICATIONS** 058 I 059



# Highlight

- Air cooled VRF Heat pump & Heat Recovery
- 12.1 ~ 33.6kW (Cooling capacity based)
- Both 1Ø, 220 ~ 240V, 50Hz and 3Ø, 380 ~ 415V, 50Hz
- Side discharge outdoor unit
- Includes the industry's first single phase Heat Recovery system
- Includes the industry's first R32 side discharge



**Energy savings** 





How does it work?

Combination of Cooling,

Heating and Hot Water Solution

INDOOR UNIT

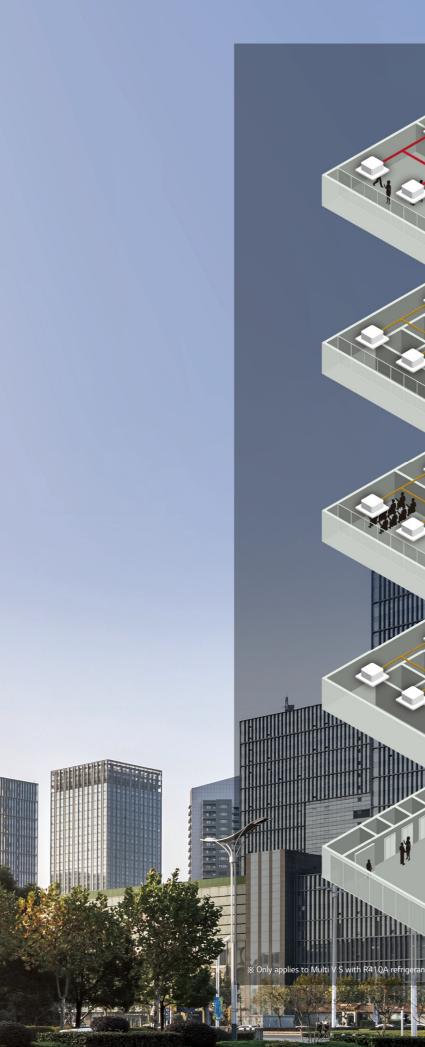
Available in Heat Pump and

**Heat Recovery Configurations** 

Energy saving by heat recovery unit

Reliability

Convenience



150m (175m)

Longest Piping Length from ODU ~ IDU (Equivalent)

TOTAL PIPING LENGTH



# **Inverter Twin Rotary & Inverter Scroll Compressor**

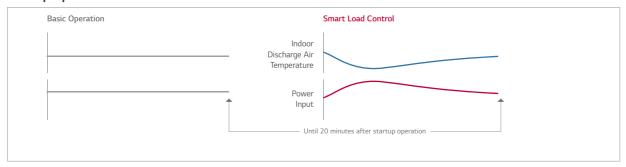
Enhanced comfort and up to 23% energy savings with MULTI V load control

MULTI V S changes indoor discharge air temperature continuously according to load, to save energy.

**Smart Load Control Applied** 

SLC (Smart Load Control) operation Startup Operation After 20 minutes

# **Startup Operation**



Max 10% Energy saving

- Refined in discharge temperature

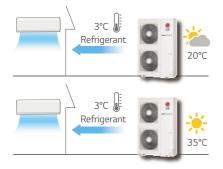
   Energy efficiency increased by 3-step Smart Load Control during startup phase

   Discharge air temperature adjusted according to outdoor and indoor temperature

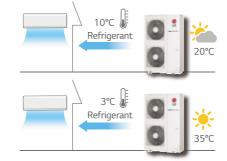
   Comfort level in cooling / heating operations ensured

# **Real Time Operation**

**Basic Operation** 



# **Smart Load Control**



Fixed refrigerant temperature

Fixed refrigerant temperature

Max 13% Energy saving

- \*\* How to set up : By dip switch in outdoor unit (Referred to Product Data Book) Factory default setting is Off Outdoor temperature condition : EER 100% / 75% / 50% / 25% = 35℃ (DB) / 30℃ (DB) / 25℃ (DB) / 20℃ (DB) Indoor temperature condition : 27℃ (DB) / 19℃ (WB)
- ※ Dual sensing (Temperature & humidity) smart load control is possible with Remote controller PTEMTB100 (White) /PREMTBB10 (Black)

Adapted High Efficient Compressor according to Capacity



#### **Inverter Twin Rotary**

#### Concentrated Winding Motor

Oil path area is improved by over 50% by increasing the extra stator cavity. Due to this, caloric value of motor is reduced, improving the cooling function of stator coil.

Twin Rotary Rotor Upper and lower part rotor offset imbalance in shaft rotor rotation. Vibration and noise is reduced. Max torque load decreased by 45% compared to single rotor.

Surface Coating Surface coating of outstanding abrasion resistance property on vane and crank shaft.

#### - Compact core design (Concentrated motor) - Down to 15Hz: Part load efficiency improvem

Compressor reliability is maximized with 6 Bypass Valve Prevent compressor damage due to excessively compres



# 6 Bypass Valve

refrigerant more efficiently than 4 Bypass valve



# Direct Oil Injection

- Eliminate suction refrigerant gas heat loss through direct oil injection into
- compression chamber (Efficiency increases)
- Increased reliability with regulated oil supply

Inverter scroll compressor

Best-in-class Compressor Speed

Rapid response capability

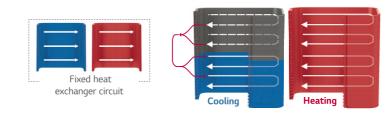
#### Scroll Profile

- The enhanced reliability by Increased reliability with regulated oil supply
- Efficiency increases by expanding 96% Bypass area and 17% improved volume ratio by non-uniform scroll thickness

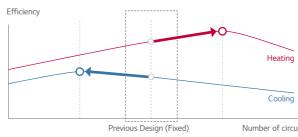
# **Optimal Heat Exchanger**

Maximize Efficiency according to different Heat Exchanger path by cooling and heating

Variable Heat Exchanger Circuit intelligently selects the optimal. With this smart path selection technology, an average of 6% increase in the efficiency of both operations has been achieved.

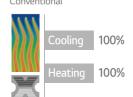


# Efficiency performance



# Efficiency up due to Fin shape

Improved heat exchanger efficiency of up to 28% Wide Louver Plus Fin





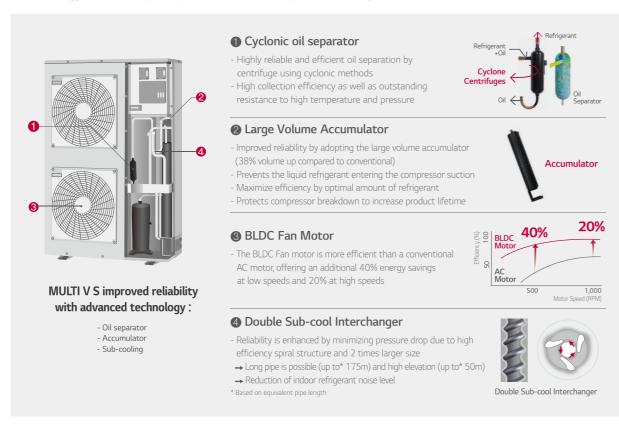
**OUTDOOR UNITS KEY FEATURES** 062 I 063

# **IMPROVED** SU Ш

CONVENIENC

# **Reliable Refrigerant Components**

LG technology allows for superior performance and component durability

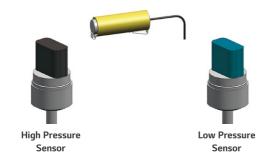


# **Smart Control**

Pressure control applied for smart, quick and precise response to user's temperature request

# Temperature + Pressure Control

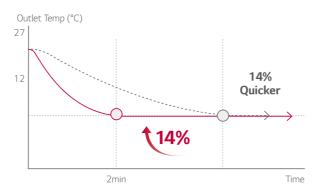
Senses and controls pressure directly using pressure sensor for faster and more exact response to load variation.



# **Quick Operating Response**

Desired temperature can be reached up to 14% faster in cooling mode with pressure control, allowing more accurate control of indoor environment for maximized comfort.

% Specifications may vary for each model.



O— Pressure +Temperature Control

O- Temperature Control

# Corrosion Resistance Black Fin

# Strong Durability against high salinity and heavily polluted air

Black Fin ensures continued operation of MULTI V S in highly corrosive environments like salt concentration in coastal towns or severe air pollution in industrial cities keeps. This improvement in durability prolongs the product's lifespan and lowers both the operational and maintenance costs.

# **Corrosion Resistance Proven by Certified Tests**

LG Corrosion Resistance solution passed ISO 21207 accelerated corrosion test conducted by an independent test organization and the result has been certified by prestigious global certification organization,

# contamination and air pollution. Moreover, the hydrophilic film keeps water from accumulating on the heat exchanger's fin, minimizing moisture buildup and eventually making it even more corrosion resistant. Certified protection

**Enhanced Coating Layers** 

# Hydrophilic film (Water flow) The Hydrophilic coating minimizes moisture Acryl + Epoxy + Melamine resin (Corrosion resistant) The Black coating provides strong protection from corrosion Aluminum fin

The black coating with enhanced epoxy resin is applied for strong

protection from various corrosive external conditions such as salt

# **Sufficient Piping Length**

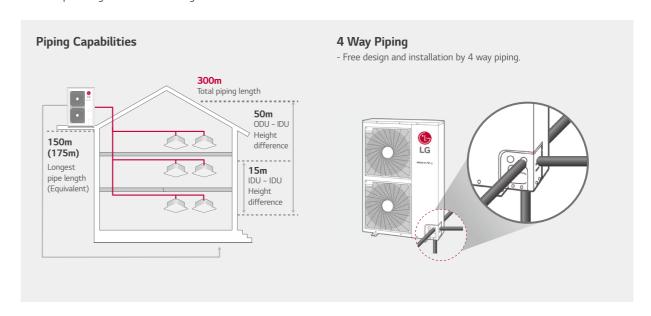
# Increased piping length allows for flexible design and installation

Declared by TUV Rheinland

Test Method B of ISO21207

+ severe industrial / traffic environment (NO<sub>2</sub> / SO<sub>2</sub>)

MULTI V S inverter technology and sub cooling control circuit technology allows greater piping length and outstanding elevation differences. A cooling system can be implemented more flexibly in a shop, office and even high-rise building, reducing the designer's work time and providing more efficient design.



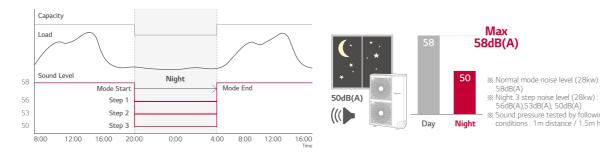
**OUTDOOR UNITS KEY FEATURES** 064 I 065

# **TECHNICAL DATA**

# **Low Noise Operation**

Decreased noise during operation with low noise functionality

At night mode, noise reduced maximum 14% compared to normal mode.



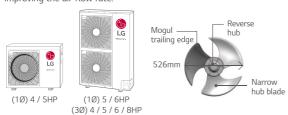
# Fan Technology and RPM Control

External static pressure control for outdoor unit fan to adapt more flexibly to various installation conditions of outdoor unit

For enhanced efficiency, new axial fan boasts higher air volume, increased static pressure and decreased noise.

# Fan Technology

The new axial fan has a mogul trailing edge, narrow hub blade and reverse hub, this provides a high efficiency, low noise, wide fan, as well as improving the air flow rate.



Super cannon fan increases the air volume in 50 CMM and the noise level is decreased by 4dB(A).



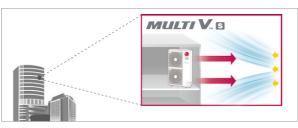


#### Fan RPM control

Flow of air is straight due to fan shroud and Fan RPM control even in high-rise building.

56dB(A),53dB(A), 50dB(A)





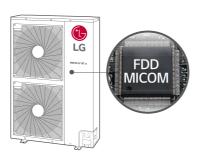
- · Straight air flow
- New shroud adopted - Performs high static pressure

# **Upgraded Fault Detection and Diagnosis**

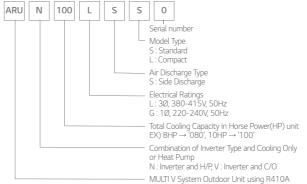
Easy and convenient maintenance with self-diagnosis

The inclusion of FDD elements - Auto start-up, auto refrigerant check, black box functionality, simultaneous evaluation, and auto refrigerant collection, provides the optimal solution for user reliability and ease of maintenance.

- Auto commissioning Mode
- Auto Refrigerant Collection
- Auto evaluation of refrigerant amount and charging
- Able to access LGMV (LG Monitoring View) by smartphone
- Black box function
- Piping & wiring error check-up



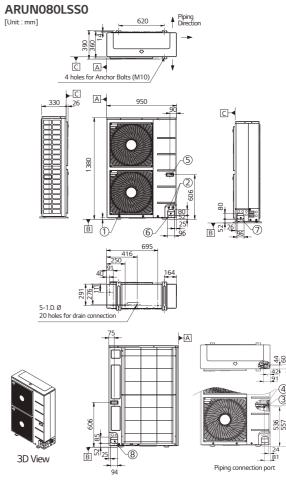
## Nomenclature



#### **Outdoor Units Function**

Category	Functions	MULTI V S
	Variable Path of Outdoor Unit HEX	-
Vou Defrigerant	HiPOR™ (High Pressure Oil Return)	-
Key Refrigerant Components	Humidity Sensor	ARUB060GSS4 on
	Corrosion Resistance Black Fin	0
	Oil Sensor	-
	Dual Sensing	ARUB060GSS4 on
	Low Noise Operation	0
	Hgih Static Mode of Outdoor Unit Fan	0
	Partial Defrosting	-
Special Function	Auto Dust Removal of Outdoor Unit (Fan reverse rotation)	-
	Indoor Cooling Comfort Mode Based Outdoor Temperature	0
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	0
	Outdoor Unit Control Refer to Humidity	ARUB060GSS4 on
	Defrost / Deicing	0
	High Pressure Switch	0
	Phase Protection	0
Basic Function	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	-
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
IO Module (ODU Dr	y Contact)	PVDSMN000
PDI (Power	Standard	PPWRDB000
Distribution Indicator)	Premium	PQNUD1S40
Cool / Heat Selector		PRDSBM
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	PLGMVW100
Additional kit	Refrigerant Charging Kit	O (Logical operation Not applied to ARUB060GSS4
	Low Ambient Kit	
	Variable Water Flow Valve Control Kit	-

# ARUN040GSS0 5-1.D. Ø20 holes for drain



 Unit should be installed in compliance with the installation manual in the product box.

2. Unit should be grounded in accordance with the local regulation or applicable national

All electrical components and materials to be supplied from the site must comply with the

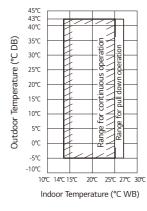
local regulations or international codes.

4. Electrical characteristics chapter should be considered for electrical work and design. Especially the power cable and circuit break should be selected in accordance with that.

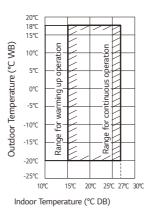
No.	Part Name	Description
1	Air Outlet	-
2	Power and communication cable Hole	-
3	Gas Pipe Connection	Welding
3	das ripe connection	joint
4	Liquid Pipe Connection	Welding
4	Liquid Pipe Connection	joint
5	Handle	-
6	Pipe routing hole (front)	-
7	Pipe routing hole (side)	-
8	Pipe routing hole (back)	-

# Heat Pump

# Cooling

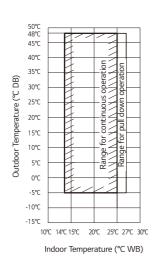


# Heating

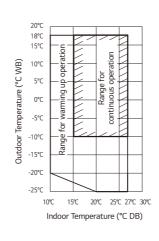


# **Heat Recovery**

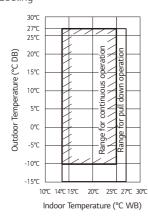
## Cooling



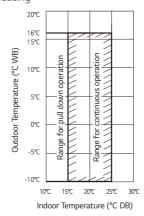
# Heating



## Simultaneous Cooling



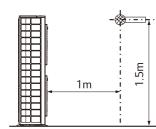
## Simultaneous Heating



- 1. These figures assume the following operating conditions: Equivalent piping length: 7.5m
- Level difference: 0m

  2. Range of pull down operation: If the relative humidity is too high, cooling capacity can be decreased by the sensible

# **Position of Sound Level Measuring**



- These figures assume the following operating conditions:
- Equivalent piping length: 7.5m Level difference: 0m

# ARUN040GSS0 / ARUN050GSL0





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Check ongoing validity of certification: www.eurovent-certification.com

	HP		4		
Model Name			ARUN040GSS0	ARUN050GSL0	
C	Cooling (Rated) kW		12.1	14.0	
Capacity	Heating (Rated)	kW	12.5	15.0	
lancat.	Cooling (Rated)	kW	4.03	5.34	
Input	Heating (Rated)	kW	3.10	3.98	
EER			3.00	2.62	
SEER			5.63	6.19	
COP	Rated Capacity		4.03	3.77	
SCOP			3.97	4.21	
	Color (General)		Warm Gray	Warm Gray	
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044	
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	
	Туре		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	
	Combination x No.		(Inverter) x 1	(Inverter) x 1	
Compressor	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1	
	Oil Type		FW68D (PVE)	FW68D (PVE)	
	Oil Charge	сс	1,300	1,300	
	Туре		Axial Flow Fan	Axial Flow Fan	
	Motor Output x Number	W x No.	124 x 1	124 x 1	
Fan	Air Flow Rate (High)	m³/min x No.	60	60	
	Drive		DC INVERTER	DC INVERTER	
	Discharge	Side / Top	Side	Side	
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	
<u>~'</u>	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	
Dimensions (V	W x H x D)	mm x No.	950 × 834 × 330	950 × 834 × 330	
Dimensions (V	W x H x D) - Shipping	mm x No.	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1	
Net Weight		kg x No.	70	73	
Shipping Weig	jht	kg x No.	77 x 1	81 x 1	
Sound	Cooling	dB(A)	50	52	
Pressure Level	Heating	dB(A)	52	58	
Sound Power	Cooling	dB(A)	72	72	
Level	Heating	dB(A)	75	75	
Communicatio	on Cable	mm² x No. (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	
	Refrigerant Name	(1011 35)	R410A	R410A	
Refrigerant	Precharged Amount in factory	kg	1.8	2.4	
	t-CO <sub>2</sub> eq		3.758	5.010	
	Control		Electronic Expansion Valve	Electronic Expansion Valve	
			220-240 , 1 , 50	220-240 , 1 , 50	
Power Supply		Ø, V, Hz	220, 1, 60	220, 1, 60	
Number of Maximum Connectable Indoor Units		or Units	8	8*	

- \* In case of ARUN050GSL0, maximum combination ratio is 130%.

- \* In case of ARUN050GSL0, maximum combination ratio is 130%.

  Note

  1. Eurovent Test Condition: Type of indoor unit connected is only Ceiling Concealed Duct.

   Refer to EUROVENT certification regulation for more detail test conditions.

   Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  2. Performances are based on the following conditions:

   Cooling Temperature: Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB

   Heating Temperature: Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

   The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)

  4. Wiring cable size must comply with the applicable local and national codes.

  5. Due to our policy of innovation some specifications may be changed without notification.

  6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  7. Power factor could vary less than ±1% according to the operating conditions.

  8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)



**HEAT PUMP** 



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	HP		5	6
Model Name		ARUN050GSS0	ARUN060GSS0	
	Cooling (Rated)	kW	14.0	15.5
Capacity	Heating (Rated)	kW	16.0	18.0
lt.	Cooling (Rated)	kW	4.59	5.17
Input	Heating (Rated)	kW	4.18	5.00
EER			3.05	3.00
SEER			7.40	7.53
COP	Rated Capacity		3.83	3.60
SCOP			4.16	4.35
<b>.</b>	Color (General)		Warm Gray	Warm Gray
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus
Ĭ	Туре		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number W x No.		4,000 x 1	4,000 x 1
	Oil Type		FW68D (PVE)	FW68D (PVE)
	Oil Charge	СС	1,300	1,300
	Туре		Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 2	124 x 2
Fan	Air Flow Rate (High)	m³/min x No.	110	110
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W x H x D)		mm x No.	950 × 1,380 × 330	950 × 1,380 × 330
Dimensions (\	N x H x D) - Shipping	mm x No.	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight		kg x No.	94	94
Shipping Weight	ght	kg x No.	77 x 1	81 x 1
Sound	Cooling	dB(A)	51	52
Pressure Level		dB(A)	53	54
Sound Power	Cooling	dB(A)	72	72
Level	Heating	dB(A)	76	77
Communication	on Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
Refrigerant	Refrigerant Name		R410A	R410A
	Precharged Amount in factory	kg	3.0	3.0
	t-CO <sub>2</sub> eq		6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	220-240 , 1 , 50	220-240,1,50
,			220, 1, 60	220, 1, 60
Number of M	Number of Maximum Connectable Indoor Units 10			13

- Note

  1. Eurovent Test Condition: Type of indoor unit connected is only Ceiling Concealed Duct.

  Refer to EUROVENT certification regulation for more detail test conditions.

  Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  2. Performances are based on the following conditions:

  Cooling Temperature: Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB

  Heating Temperature: Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

  The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)

  Wiring cable size must comply with the applicable local and national codes.

  Due to our policy of innovation some specifications may be changed without notification.

  Sound power level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.

  Power factor could vary less than ±1% according to the operating conditions.

  This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

# ARUN040LSS0 / ARUN050LSS0 ARUN060LSS0





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: www.eurovent-certification.com

	HP		4	5	6
Model Name			ARUN040LSS0	ARUN050LSS0	ARUN060LSS0
c :	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.5	16.0	18.0
laat	Cooling (Rated)	kW	3.39	4.59	5.17
Input	Heating (Rated)	kW	2.75	4.18	5.00
EER			3.57	3.05	3.00
SEER			7.42	7.40	7.53
COP	Rated Capacity		4.55	3.83	3.60
SCOP			4.30	4.16	4.35
	Color (General)		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1	4,000 x 1
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	СС	1,300	1,300	1,300
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 2	124 x 2	124 x 2
an	Air Flow Rate (High)	m³/min x No.	110	110	110
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.883(5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (\	W x H x D)	mm x No.	950 × 1,380 × 330	950 × 1,380 × 330	950 × 1,380 × 330
Dimensions (\	W x H x D) - Shipping	mm x No.	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight		kg x No.	96	96	96
Shipping Weig	ght	kg x No.	77 x 1	77 x 1	81 x 1
Sound	Cooling	dB(A)	50	51	52
Pressure Level	Heating	dB(A)	52	53	54
Sound Power	Cooling	dB(A)	72	72	72
Level	Heating	dB(A)	76	76	77
Communication	on Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in factory	kg	3.0	3.0	3.0
	t-CO <sub>2</sub> eq		6.263	6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
		a.v.	380-415,3,50	380-415, 3, 50	380-415, 3, 50
Power Supply		Ø, V, Hz	380, 3, 60	380, 3, 60	380, 3, 60
Number of M	aximum Connectable Indo	or Units	8	10	13

- Note

  1. Eurowent Test Condition: Type of indoor unit connected is only Ceiling Concealed Duct.

   Refer to EUROVENT certification regulation for more detail test conditions.

   Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  2. Performances are based on the following conditions:

   Cooling Temperature: Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB

   Heating Temperature: Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

  3. The maximum combination ratio is 160% (the maximum combination ratio of ARUNO50GSL0 is 130%.)

  4. Wiring cable size must comply with the applicable local and national codes.

  5. Due to our policy of innovation some specifications may be changed without notification.

  6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  7. Power factor could vary less than ±1% according to the operating conditions.

  8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

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#### ARUB060GSS4

#### ARUN080LSS0 / ARUN100LSS0 ARUN120LSS0





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	НР		8	10	12
Model Name	- "		ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
Wodet Warne	Cooling (Rated)	kW	22.4	28.0	33.6
Capacity	Heating (Rated)	kW	24.5	30.6	36.7
	Cooling (Rated)	kW	8.45	12.44	15.27
Input	Heating (Rated)	kW	6.96	8.50	12.23
EER	reacing (nacea)	1.44	2.65	2.25	2.20
SEER			7.13	6.28	6.50
COP	Rated Capacity		3.52	3.60	3.00
SCOP			4.53	4.21	4.32
	Color (General)		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044	RAL 7044
Heat	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
Exchanger	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,200 x 1	5.300 x 1	5.300 x 1
Compressor	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	СС	2,400	2,600	3,400
	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	124 x 2	250 x 2	250 x 2
Fan	Air Flow Rate (High)	m³/min x No.	140	190	190
	Drive	,	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
Dimensions (\		mm x No.	950 × 1,380 × 330	1,090 × 1,625 × 380	1,090 x 1,625 x 380
	N x H x D) - Shipping	mm x No.	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight	, ,,	kg x No.	115	142	155
Shipping Wei	ght	kg x No.	77 x 1	77 x 1	81 x 1
Sound	Cooling	dB(A)	57	58	60
Pressure Level	Heating	dB(A)	57	58	60
Sound Power	Cooling	dB(A)	78	77	78
Level	Heating	dB(A)	81	79	82
Communication	on Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
	Refrigerant Name	(	R410A	R410A	R410A
Defriesses	Precharged Amount in factory	kg	3.5	4.5	6.0
Refrigerant	t-CO <sub>2</sub> eq		7.306	9.394	12.525
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
D 6 1		a.v.	380-415, 3, 50	380-415, 3, 50	380-415 , 3 , 50
Power Supply		Ø, V, Hz	380,3,60	380,3,60	380,3,60
Number of M	aximum Connectable Indo	or Units	13	16	20

- Note

  1. Eurovent Test Condition: Type of indoor unit connected is only Ceiling Concealed Duct.

  Refer to EUROVENT certification regulation for more detail test conditions.

  Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  2. Performances are based on the following conditions:

  Cooling Temperature: Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB

  Heating Temperature: Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

  The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)

  Wiring cable size must comply with the applicable local and national codes.

  Due to our policy of innovation some specifications may be changed without notification.

  Sound power level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.

  Power factor could vary less than ±1% according to the operating conditions.

  This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)





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	НР		6
Model Name	- ""	_	ARUB060GSS4
Wodel Wallie	Cooling (Rated)	kW	15.5
Capacity	Heating (Rated)	kW	18.0
	Cooling (Rated)	kW	5.74
Input	Heating (Rated)	kW	5.14
EER	rieating (Nateu)	KVV	2.70
SEER			5.92
COP	Rated Capacity		3.50
SCOP	катей Сарасіту		3.79
SCOP	Color		
Exterior			Warm Gray RAL 7044
Heat	RAL Code (Classic)		
Exchanger	Туре		Wide Louver Plus
	Туре		Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,200 x 1
	Oil Type		FW68D (PVE)
	Oil Charge	СС	1,700
	Туре		Axial Flow Fan
	Motor Output x Number	W x No.	124 x 2
Fan	Air Flow Rate (High)	m³/min x No.	110
	Drive		DC INVERTER
	Discharge	Side / Top	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)
Connection	Low Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)
#1	High Pressure Gas Pipe	mm (inch)	Ø15.88 (5/8)
Dimensions (\	W x H x D)	mm x No.	950 × 1,380 × 330
Dimensions (\	W x H x D) - shipping	mm x No.	(1,140 x 1,549 x 466) x 1
Net Weight		kg x No.	118
Shipping Wei	ght	kg x No.	132
Sound	Cooling	dB(A)	56
Pressure Level	Heating	dB(A)	58
Sound Power	Cooling	dB(A)	76
Level	Heating	dB(A)	78
Communication	on Cable	mm² x No. (VCTF-SB)	2C x 1.0 ~ 1.5
	Refrigerant Name		R410A
Refrigerant	Precharged Amount in factory	kg	3.5
	t-CO <sub>2</sub> eq		7.306
	Control		Electronic Expansion Valve
Power Supply		Ø, V, Hz	220-230-240 , 1 , 50/60
Number of M	aximum Connectable Indo	or Units	13

- Note

  1. Eurovent Test Condition: Type of indoor unit connected is only Ceiling Concealed Duct.

   Refer to EUROVENT certification regulation for more detail test conditions.

   Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  2. Performances are based on the following conditions:

   Cooling Temperature: Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB

   Heating Temperature: Indoor 20°C (68°F) DB / 15°C (69°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

  3. The maximum combination ratio is 160% (the maximum combination ratio of ARUNOSOGSLO is 130%.)

  4. Wirring cable size must comply with the applicable local and national codes.

  5. Due to our policy of innovation some specifications may be changed without notification.

  6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  7. Power factor could vary less than ±1% according to the operating conditions.

  8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

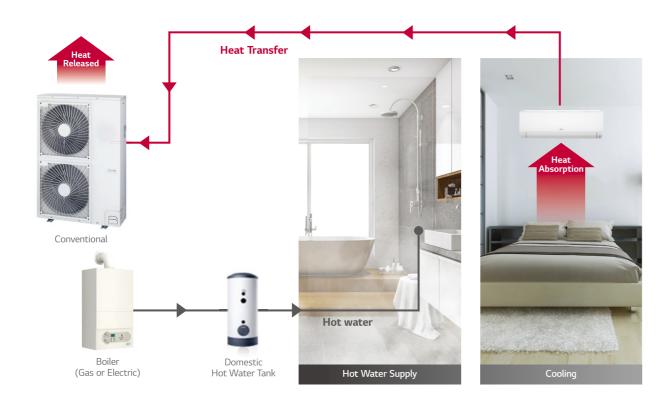
# MULTI V S

# **Energy Savings**

Energy consumption can be reduced as indoor heat is absorbed and transferred to hot water supply.

#### Conventional

Absorbed heat is released to outdoor air.

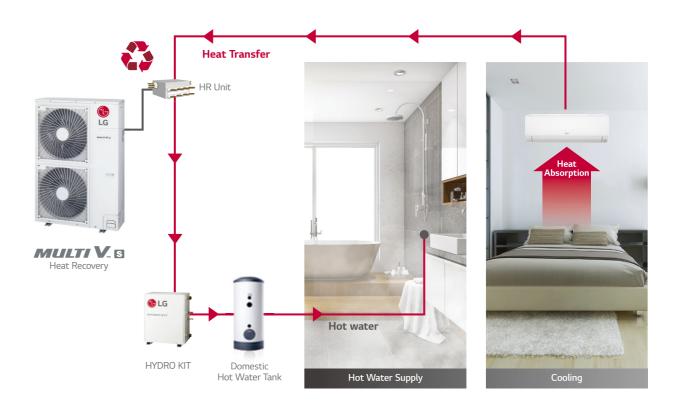


# **Energy Savings**

Energy consumption can be reduced as indoor heat is absorbed and transferred to hot water supply.

#### MULTI V S Heat Recovery with HYDRO KIT

Absorbed heat from indoor space is used for making hot water.



OUTDOOR UNITS APPLICATION GUIDE **074** I 075



- Air cooled VRF Heat pump
- 12.1 ~ 15.5kW (Cooling capacity based)
- Both 10, 220 ~ 240V, 50Hz and 30, 380 ~ 415V, 50Hz



# **Lower Global Warming Potential**

(GWP)

#### What is GWP?

Global Warming Potential is a measure that allows for an accurate comparison of the environmental impact of different gases. GWP measures how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO<sub>2</sub>).









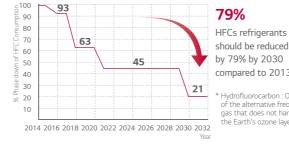




# $CH_4$

#### Global Trend and EU Regulation for F-Gas

HFC\* Phase Down 79% by 2030.



should be reduced by 79% by 2030 compared to 2013. Hydrofluorocarbon : One

of the alternative freon gas that does not harm the Earth's ozone layer

# **Cost Savings with R32**

#### **Higher Efficiency**

Savings on cost of energy consumption.



#### **Reduced Equipment Sizes**

Savings on product purchase and labor cost for installation and maintenance



#### Less Refrigerant Charge

Savings on cost of injecting & replacing refrigerant.



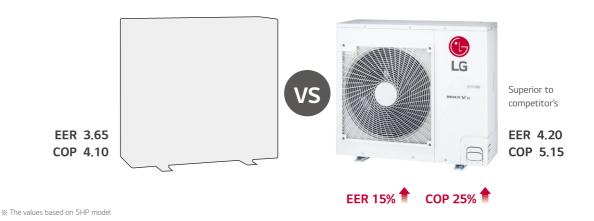
#### Reduced Refrigerant Volume

Savings on refrigerant purchase and recycling costs.



# **Higher Efficiency**

LG Multi V S achieved high efficiency through technology of biomimetic fan and revolutionary scroll compressor.



# Compact Size & Light Weight

Its compact size and light weight make it easy to install and optimize space. (5/6HP)







# Less Refrigerant Charge

LG reduced refrigerant charge by applying environment-conscious refrigerant R32.

※ IDU (Wall Mounted Unit): 5 kBtu/h, 8 EA % This result can be different depending on actual environment





### **Corrosion Resistance Black Fin**

#### **Enhanced Coating Layers**

The black coating with enhanced epoxy resin is applied for strong protection from various corrosive external conditions such as salt contamination and air pollution. Moreover, the hydrophilic film keeps water from accumulating on the heat exchanger's fin, minimizing moisture buildup and eventually



#### Hydrophilic film (Water flow)

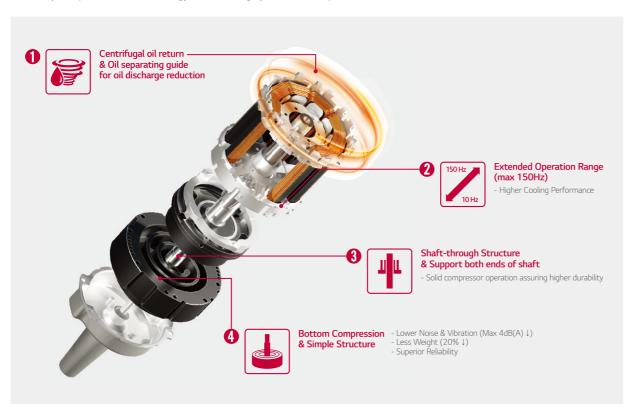
The Hydrophilic coating minimizes moisture buildup on the fin.

Acryl + Epoxy + Melamine resin (Corrosion resistant) The Black coating provides strong protection from corrosion

Aluminum fin

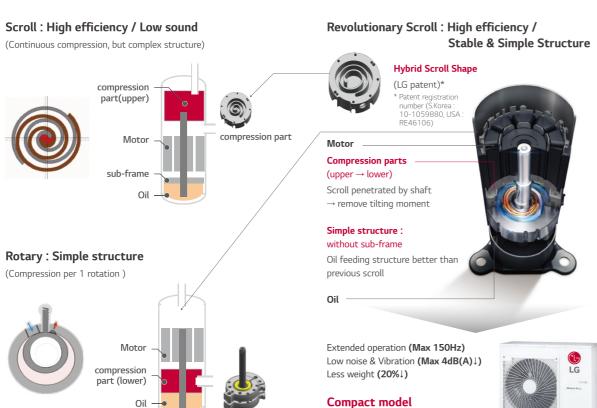
# **R1**Compressor<sup>™</sup>

R1 Compressor is one that combines high-efficiency, low sound characteristics of the scroll and the simple compressing structure of the rotary compressor. This technology enables a highly efficient compact model.



#### **Conventional Compressor**

R1Compressor™



compression part

(Size 40%↓, Weight 25%↓)

#### ZRUN040GSS0 / ZRUN050GSS0 ZRUN060GSS0



HEAT

PUMP

R3





LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification

	НР		4	5	6
Model Name			ZRUN040GSS0	ZRUN050GSS0	ZRUN060GSS0
	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.1	14.0	15.5
	Heating (Max)	kW	14.2	16.0	18.0
	Cooling (Rated)	kW	4.26	4.90	5.64
Input	Heating (Rated)	kW	3.03	3.48	3.95
	Heating (Max)	kW	3.84	4.32	5.29
EER (Rated)			2.84	2.86	2.75
SEER			6.69	6.44	6.59
COP (Rated)			4.00	4.02	3.92
COP (Max)			3.70	3.70	3.40
SCOP			3.87	3.81	4.07
Exterior	Color		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Туре		LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	СС	1,100	1,100	1,100
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1	198 x 1	198 x 1
Fan	Air Flow Rate (High)	m³/min x No.	60	80	80
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W >	(H x D)	mm x No.	950 x 834 x 330	950 x 834 x 330	950 × 834 × 330
Dimensions (W >	( H x D) - Shipping	mm x No.	1,147 x 919 x 461	1,147 x 919 x 461	1,147 x 919 x 461
Net Weight		kg x No.	64.7	71.6	71.6
Shipping Weight		kg x No.	73.7	79.6	79.6
Sound Pressure	Cooling	dB(A)	51	57	57
Level	Heating	dB(A)	55	60	60
Sound Power	Cooling	dB(A)	67	70	71
Level	Heating	dB(A)	71	74	75
Communication	Cable	mm² x No. (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
	Refrigerant name		R32	R32	R32
Refrigerant	Precharged Amount	kg	1.5	2.0	2.0
	t-CO₂eq		1.013	1.350	1.350
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	220 - 230 - 240 , 1 , 50	220 - 230 - 240 , 1 , 50	220 - 230 - 240 , 1 , 50
Number of maxin	mum connectable indoor u	inits	8	10	13

- Note
  1. Due to our policy of innovation some specifications may be changed without notification.
  2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
  3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.

- Performances are based on the following conditions:
   Cooling: Indoor Ambient Temp 27°CDB / 19°CV/B, Outdoor Ambient Temp 35°CDB / 24°CWB
   Heating: Indoor Ambient Temp 20°CDB / 15°CWB, Outdoor Ambient Temp 7°CDB / 6°CWB
   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.
- 5. EUROVENT Test Condition
- Performance values on the this PDB are based on Ceiling mounted cassette combination.
   Refer to EUROVENT web site(www.eurovent-certification.com) for other indoor unit
- combination and more detail test conditions.
  6. The maximum combination ratio is 160%.
  7. This product contains Fluorinated greenhouse gases. (R32, GWP (Global warming potential) = 675)

#### ZRUN040LSS0 / ZRUN050LSS0 ZRUN060LSS0







LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification

	HP		4	5	6
Model Name			ZRUN040LSS0	ZRUN050LSS0	ZRUN060LSS0
	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.1	14.0	15.5
	Heating (Max)	kW	14.2	16.0	18.0
	Cooling (Rated)	kW	4.26	4.90	5.64
nput	Heating (Rated)	kW	3.03	3.48	3.95
	Heating (Max)	kW	3.84	4.32	5.29
ER (Rated)			2.84	2.86	2.75
SEER			6.69	6.44	6.59
COP (Rated)			4.00	4.02	3.92
COP (Max)			3.70	3.70	3.40
SCOP			3.87	3.81	4.07
	Color		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1
•	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	СС	1,100	1,100	1,100
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1	198 x 1	198 x 1
Fan	Air Flow Rate (High)	m³/min x No.	60	80	80
	Drive	IVO.	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W x		mm x No.	950 x 834 x 330	950 x 834 x 330	950 × 834 × 330
	H x D) - Shipping	mm x No.	1,147 x 919 x 461	1,147 x 919 x 461	1,147 x 919 x 461
Net Weight	, 11 3	kg x No.	64.7	71.6	71.6
Shipping Weight		kg x No.	73.7	79.6	79.6
Sound Pressure	Cooling	dB(A)	51	57	57
Level	Heating	dB(A)	55	60	60
Sound Power	Cooling	dB(A)	67	70	71
Level	Heating	dB(A)	71	74	75
Communication (		mm² x No.	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
	Refrigerant name	(VCTF-SB)	R32	R32	R32
	Precharged Amount	kg	1.5	2.0	2.0
Refrigerant	t-COzeq	9	1.013	1.350	1.350
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	COILLO	Ø, V, Hz	380 - 400 - 415, 3, 50	380 - 400 - 415, 3, 50	380 - 400 - 415, 3, 50
ower supply	num connectable indoor u		380 - 400 - 415, 3, 50 8	300 - 400 - 413, 3, 30	300 - 400 - 413, 3, 50

- Note
  1. Due to our policy of innovation some specifications may be changed without notification.
  2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
  3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.

- 4. Performances are based on the following conditions:

   Cooling: Indoor Ambient Temp 27°CDB / 19°CVMB, Outdoor Ambient Temp 35°CDB / 24°CWB

   Heating: Indoor Ambient Temp 20°CDB / 15°CVMB, Outdoor Ambient Temp 7°CDB / 6°CWB

  interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m. 5. EUROVENT Test Condition
- Performance values on the this PDB are based on Ceiling mounted cassette combination.
   Refer to EUROVENT web site(www.eurovent-certification.com) for other indoor unit
- combination and more detail test conditions.
- The maximum combination ratio is 160%.
   This product contains Fluorinated greenhouse gases. (R32, GWP (Global warming potential) = 675)

**OUTDOOR UNITS SPECIFICATIONS** 



#### Highlight

- Air Cooled VRF Heat Pump
- 14kW (Cooling capacity based)
- 3Ø, 380 ~ 415V, 50Hz (Compressor Module)
- 1Ø, 220 ~ 240V, 50Hz (Heat Exchanger Module)
- Outdoor unit is installed inside building





savings

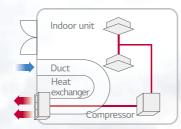
savings



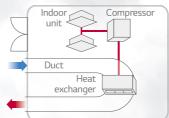
maintenance

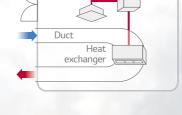
#### How does it work?

#### Direct Inlet / Outlet Case



**Duct Connected Case** 







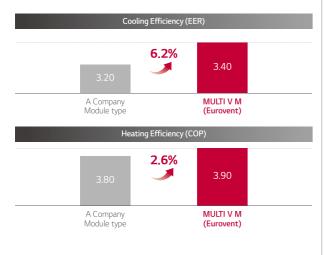




**OUTDOOR UNITS** 



# **Energy Efficiency**



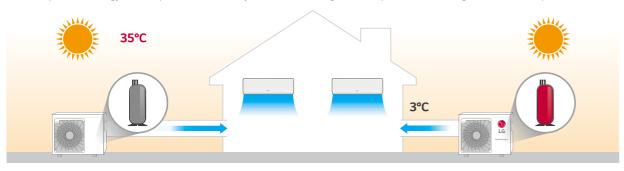
R1Compressor™

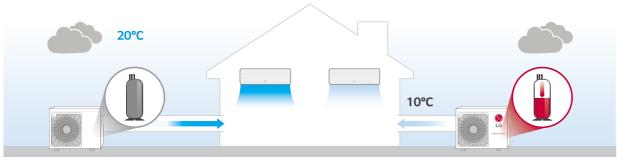
MULTI V M ensures world-class efficiency with innovative technology including R1 Compressor.

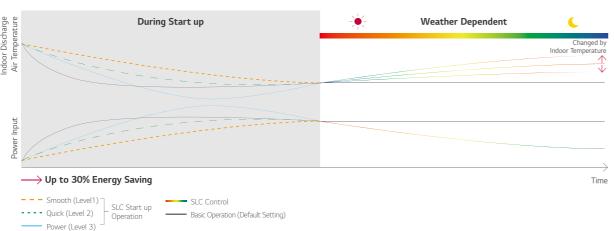


# **Smart Load Control**

To save operation energy consumption, automatically controls the refrigerant temperature according to outdoor temperature.

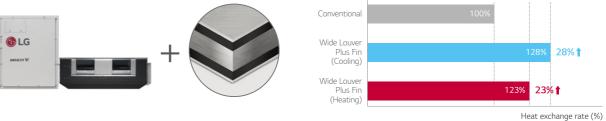






# Wide Louver Plus Fin + Corrosion Resistance

Wide Louver Plus fin technology increases efficiency and heating performance compared to conventional fin.



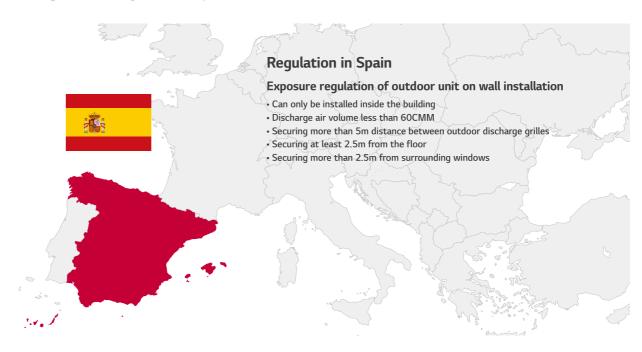
#### neat exchange rate (%

# **Quiet Operation**

Low sound level of both compressor module and heat exchanger module allows outdoor units to be installed and operated inside.



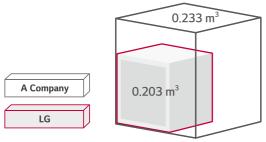
# **Regulatory Compliance**



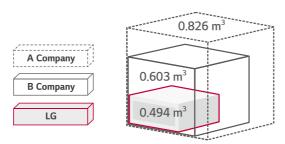
# **FLEXIBLE DESIGN** & INSTALLATION

# Volume

#### **Compressor Module**



#### **Heat Exchanger Module**



# **ESP Control**

(External Static Pressure)

up to 30 Pa





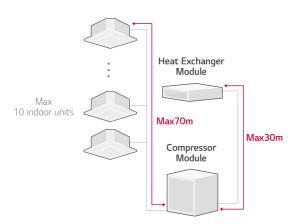


High Static Pressure Mode

# **Module Type**

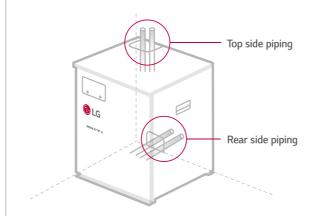
Increased design freedom

- Additional structure installation and ceiling construction not required
- Ease of service
- Compressor replacement
- Low noise with module
- Ease of service (Replacement of the comp)
- Low noise by module (vs Integrated Type)



# Flexible Piping Location

Tidy & simple installation with flexible piping location.



# **Increased Design Freedom**

Additional structure installation nor ceiling construction is required, making compressor replacement and general maintenance easier. Split module provides low noise operation compared to integrated type.



**Conventional Outdoor Unit** 



Heat exchanger module can be installed in false ceiling spaces

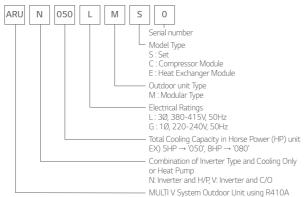


Compressor module can be installed anywhere indoors



**TECHNICAL DATA** 

#### Nomenclature

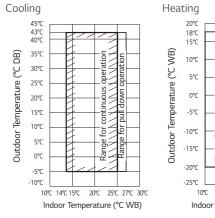


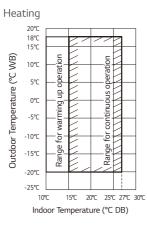
#### **Outdoor Units Function**

Outdoor Units	runction	
Category	Functions	Modular
	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
Key Refrigerant	Humidity Sensor	-
Components	Corrosion Resistance Black Fin	0
	Oil Sensor	
	Dual Sensing	
	Low Noise Operation	0
		0
	Hgih Static Mode of Outdoor Unit Fan	0
	Partial Defrosting	-
	Auto Dust Cleaning of Outdoor	-
Useful Function	Unit (Fan reverse rotation)	
	Indoor Cooling Comfort Mode	0
	Based Outdoor Temperature	
	Smart Load Control (SLC)	0
	(Changing indoor discharge air temperature according to load)	0
	Outdoor Unit Control Refer to	-
	Humidity	
	Defrost / Deicing	0
	High Pressure Switch	0
	Phase Protection	0
Reliability	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	-
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	AC Smart 5	PACS5A000
Central Controller	ACP (Advanced Control Platform)	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PONFB17C0
,	Refrigerant Charging Kit	-
Installation	Variable Water Flow Valve Control Kit	-
PDI (Power	Standard	-
Distribution Indicator)	Premium	-
Cool / Heat Selector		PRDSBM
Low Ambient Kit	·	-
IO Module		
(ODU Dry Contact)		PVDSMN000
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	PLGMVW100

※ ○ : Applied, - : Not Applied

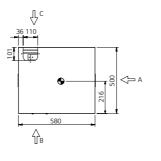
#### **Heat Pump**

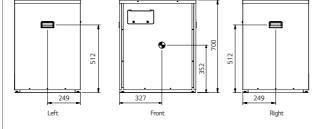


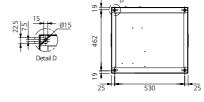


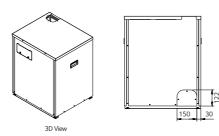
#### **Compressor Module**

[Unit:mm]

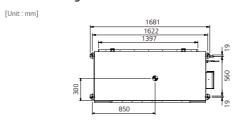


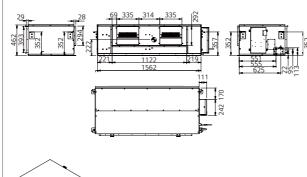


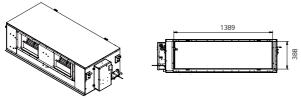




#### **Heat Exchanger Module**

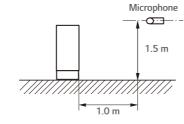






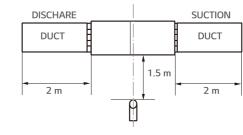
#### Position of Sound Pressure Level Measuring

#### Compressor Module



\* Measuring place : Anechoic chamber

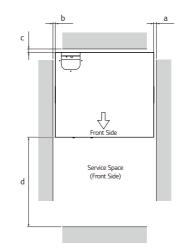
#### Heat Exchanger Module



\* Measuring place : Anechoic chamber

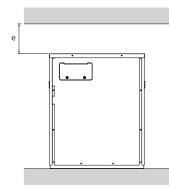
#### Installation Space for Compressor Module

Top View





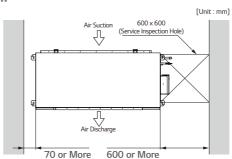
Front View



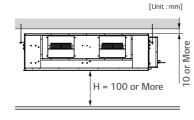
Category	Mark	Description	Installation Space (mm)
	a	Right	10 or More
C	b	Left	10 or More
Compressor — Module — —	С	Rear	10 or More
woude —	d	Front	500 or More
	e	Тор	200 or More

#### Installation Space for Compressor Module

Top View



Front View



OUTDOOR UNITS TECHNICAL DATA

# ARUNO50LMCO / ARUNO50GMEO







LG participates in the ECP programme for EUROVENT VRF program.
Check ongoing validity of certification

#### System

	HP		5
	Set		ARUN050LMS0
Model Name	Compressor Module		ARUN050LMC0
	Heat Exchanger Module	2	ARUN050GME0
	Cooling (Rated)	kW	14.0
Capacity	Heating (Rated)	kW	14.0
	Heating (Max)	kW	16.0
	Cooling (Rated)	kW	5.07
Input	Heating (Rated)	kW	3.71
	Heating (Max)	kW	4.32
EER	Based on Rated Capacit	Ey	2.76
SEER			5.26
СОР	Based on Rated Capacit	Ey	3.77
COP	Based on Max Capacity		3.70
SCOP			3.85
Number of Max	imum Connectable Indoor	Units	10

※ ○ : Applied, - : Not Applied

Note

1. Due to our policy of innovation some specifications may be changed without notification.

2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

3. Power factor could vary less than ±1% according to the operating conditions.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard.

Therefore, these values can be increased owing to ambient conditons during operation.

5. Performances are based on the following conditions:

• Cooling: Indoor Ambient Temp 27°CDB / 19°CVMB, Outdoor Ambient Temp 35°CDB / 24°CWB

• Heating: Indoor Ambient Temp 20°CDB / 15°CVMB, Outdoor Ambient Temp 7°CDB / 6°CVMB

• Interconnected Pipe Length and Difference of Elevation: – Heat Exchanger Module – Compressor Module = 5m

— Compressor Module – Indoor Unit = 7.5m

— Difference of Elevation (Heat Exchanger Module- Compressor Module – Indoor Unit) is Zero

6. The maximum combination ratio is 130%.

7. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2,087.5)







LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification

#### Module

	HP			5
Model Name			Compressor Module	Heat Exchanger Module
viodel ivame			ARUN050LMC0	ARUN050GME0
Exterior	Color		Morning Gray	Galvanized Steel Plate
Exterior	RAL Code (Classic)		RAL 7030	-
Dimensions	Net	mm x No.	580 × 700 × 500	1,562 × 460 × 688
W x H x D)	Shipping	mm x No.	618 × 833 × 564	1,806 × 537 × 825
Veight	Net	kg x No.	69.0	84
veignt	Shipping	kg x No.	76.0	95
	Туре		Hermetic Motor Compressor	-
	Combination x No.		(Inverter) x 1	-
Compressor	Motor Output	W x No.	3,200	-
	Oil Type		FW68D (PVE)	-
	Oil Charge	СС	1,300	
leat Exchanger	Туре		-	Wide Louver Plus
	Туре		-	Sirocco Fan
Fan	Motor Output x Number	W x No.	-	400 × 2
	Air Flow Rate (Rated)	$m^3$ /min x No.	-	60
xternal Static	Nominal (Rated, Factory Set)	mmAq (Pa)	-	3 (29)
ressure	Max	mmAq (Pa)	-	16 (157)
	Liquid	mm (inch)	Ø9.52 (3/8) to IDU	Ø12.7 (1/2) to Comp. Module
ipe Connection	Gas	mm (inch)	Ø15.88 (5/8) to IDU	Ø19.05 (3/4) to Comp. Module
	Drain	mm (inch)	-	25(1)
ound Pressure	Cooling (Rated)	dB(A)	45	45
evel	Heating (Rated)	dB(A)	45	45
ound Power Lev	/el	dB(A)	-	-
Communication (	Cable	mm <sup>2</sup> x No. (VCTF-SB)	2C × 1.0 ~ 1.5 to IDU	$2C \times 1.0 \sim 1.5$ to Comp. Module
	Refrigerant Name		R410A	R410A
lefrigerant	Precharged Amount	kg	2.0	-
enigerani.	t-CO <sub>2</sub> eq		4.175	-
	Control		-	Electronic Expansion Valve
Power Supply		V, Ø, Hz	380-415,3,50	220-240, 1, 50

※ ○ : Applied, - : Not Applied

% O : Applied, - : Not Applied
Note
1. Due to our policy of innovation some specifications may be changed without notification.
2. Wirring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
3. Power factor could vary less than ±1% according to the operating conditions.
4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. Performances are based on the following conditions:

Cooling: Indoor Ambient Temp 27°CDB / 19°CWB, Outdoor Ambient Temp 35°CDB / 24°CWB
Heating: Indoor Ambient Temp 20°CDB / 15°CWB, Outdoor Ambient Temp 7°CDB / 6°CWB
Interconnected Pipe Length and Difference of Elevation: — Heat Exchanger Module – Compressor Module = 5m
Compressor Module – Indoor Unit = 7.5m
Difference of Elevation (Heat Exchanger Module- Compressor Moduler – Indoor Unit) is Zero

6. The maximum combination ratio is 130%.
7. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2,087.5)



#### Highlight

- Water Cooled VRF Heat Pump & Heat Recovery
- 22.4 ~ 201.6kW (Cooling capacity based)
- 3Ø, 380 ~ 415V, 50Hz
- Outdoor unit installed indoor





MULTIV



Space savings



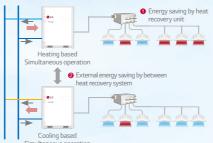
Convenient installation

#### How does it work?

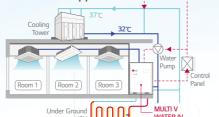
Operation independent of weather conditions













**40m** Height betwee IDU ~ IDU

**50m** Height betw IDU ~ IDU 300M





# П **NERGY SAVING**

# High Efficiency System Regardless of External Conditions

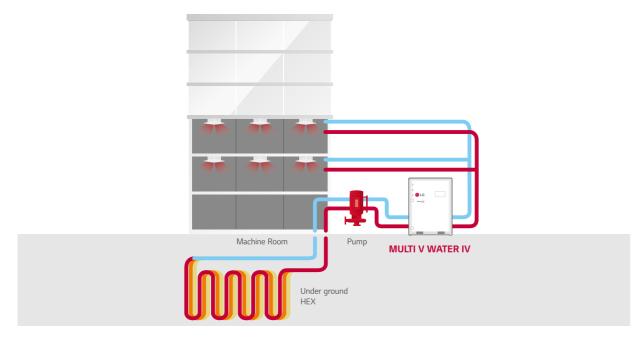
Regardless of outdoor temperature and other environmental conditions, MULTI V WATER IV is the optimal solution.

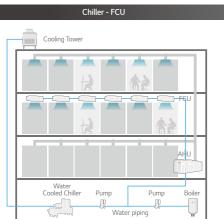


# **MULTI V WATER IV System for Geothermal Applications**

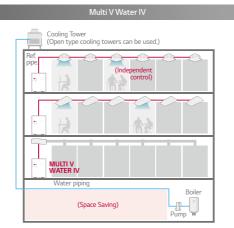
Uses underground heat sources like soil, ground water, lakes, rivers and more as renewable energy for cooling and heating. Water or antifreeze solution is circulated through the closed loop HDPE (High Density Poly-Ethylene) pipes buried beneath the earth's surface.

- The Circulating water temperature range is between -5°C  $\sim$  45°C
- Antifreeze should be applied depending on the application





Central control

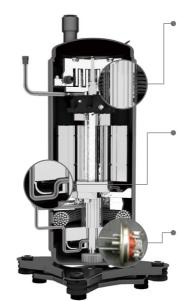


Independent control

# **Economical, Highly Efficient System**

#### LG's key technologies are integrated to inverter compressor

With 4th generation inverter compressor, the Multi V Water IV boasts top-class energy efficiency.



#### Extended Compressor Speed 20Hz ~ 140Hz

- Rapid operation response
- Capable of reaching required temperature quickly
- Increase part load efficiency

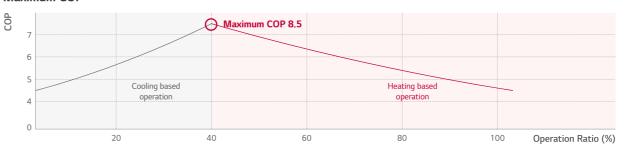
#### HiPOR™ (High Pressure Oil Return)

- Eliminating loss in suction gas by returning oil directly to compressor  $% \left( 1\right) =\left( 1\right) \left( 1\right)$
- Resolve compressor efficiency loss caused by oil return

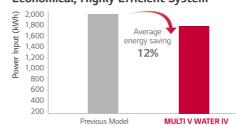
#### Active oil control (Oil level sensor)

- Oil recovery operation occurs only when required
- Enhanced compressor reliability & continuous heating
- Oil distribution between compressors

#### Maximum COP

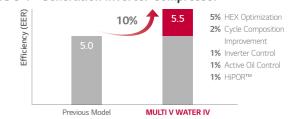


#### Economical, Highly Efficient System

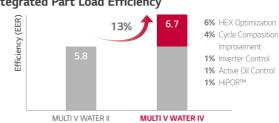


#### LG's 4th Generation Inverter Compressor

\* Comparison between 10HP (28kW) in cooling mode



#### Integrated Part Load Efficiency



**OUTDOOR UNITS KEY FEATURES** 094 I 095

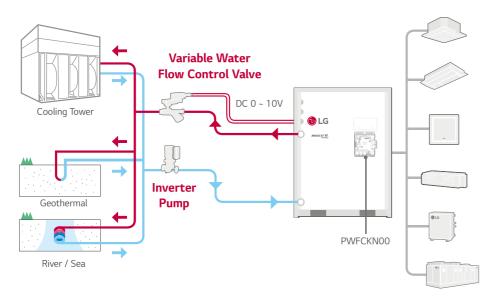
**FLEXIBLE** 

# Variable Water Flow Control

(OPTION)

#### In support of green building initiatives

The world's first variable water flow control system for water cooled VRF system. LG applied Variable Water Flow Control to optimize water flow control regarding partial cooling or heating load conditions. Because of this it's also possible to reduce circulation pump energy consumption.





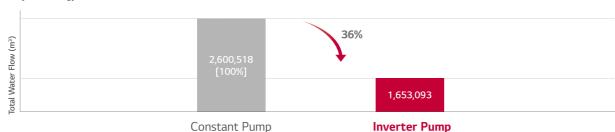
Note 1. Location : Paris, France

2. Office, 68,000m²
3. Operation time : 1,344 hours (Cooling period)

#### Project Example: 63F (Pump: 20,064 LPM, 42.4mAq x 4ea)

- 1) Inverter pump with MULTI V Water and variable water flow control kit
- 2) Constant pump (Step control) with Water cooled VRF

#### 10 years energy cost (\$)



11-5-	5 y	ears	10 y	/ears
Unit	Energy Use (kWh)	Pump Running Cost (\$)	Energy Use (kWh)	Pump Running Cost (\$)
Constant pump	7,952,040	1,142,441	15,904,080	2,600,518
Inverter pump	5,054,940	726,225	10,109,880	1,653,093

- Power consumption rate: 0.13\$/kWh
- $\bullet$  Annual power consumption rate expected to increase by 5%

# **Largest Capacity**

Sufficient pipe length limitation provides flexible design and installation

Providing 8 ~ 20HP (22.4 ~ 56kW) with single unit, and up to the world's largest capacity 80HP (224kW) by combination.

HP	8	10	14	20	22	24	28	30	34	40	42 ~ 60	62 ~ 80
kW	22.4	28	39.2	56	61.6	67.2	78.4	84	95.2	112	117.6 ~ 168	173.6 ~ 224
LG			Jnit					_			3 Units	

# **Longest Piping Length**

Sufficient pipes length limitation in design and Installation for various buildings

Provide flexible installation up to 300m of total piping length. As water pipes are not connected to indoor units, users are free from water leakage problems.

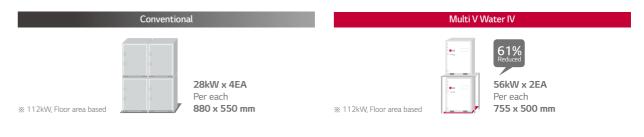


Total Piping Length	300m
Actual longest piping length (Equivalent)	150m (175m)
Longest piping length after 1st branch (Conditional application)	40m (90m)
Height difference between ODU ~ IDU	50m
Height difference between IDU ~ IDU	40m

# **Compact Size**

Thanks to compact size of product, it provides more space for commercial or public use as much as possible.

The optimal design of the compact, lightweight outdoor unit enables double stacking, which results in 50% savings in installation space.



# Lightweight

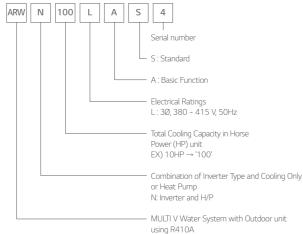
Nothing or Decrease additional load reinforcement work at building



**OUTDOOR UNITS KEY FEATURES** 096 I 097

Ш

# Nomenclature

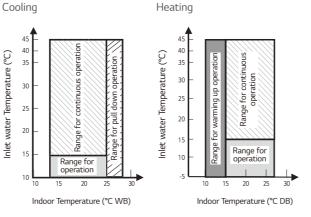


#### **Outdoor Units Function**

Category	Functions	Multi V Water IV
	Variable Path of Outdoor unit HEX	-
Key Refrigerant	HiPOR™ (High Pressure Oil Return)	0
Components	Humidity Sensor	-
	Corrosion Resistance Black Fin	-
	Oil Sensor	0
	Dual Sensing	-
	Low Noise Operation	-
	Hgih Static Mode of Outdoor Unit Fan	-
	Partial Defrosting	-
Useful Function	Auto Dust Cleaning of Outdoor Unit (Fan reverse rotation)	-
	Indoor Cooling Comfort Mode Based Outdoor Temperature	-
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	-
	Outdoor Unit Control Refer to Humidity	-
	Defrost / Deicing	-
	High Pressure Switch	0
Reliability	Phase Protection	0
Reliability	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
Central Controller	ACP (Advanced Control Platform) IV	PQCPC22A0
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
la seallanta	Refrigerant Charging Kit	-
Installation	Variable Water Flow Valve Control Kit	PWFCKN000
PDI (Power Distribution	Standard	PPWRDB000
Indicator)	Premium	PQNUD1S40
Cool / Heat Selector	r	PRDSBM
Low Ambient Kit		-
IO Module (ODU Dr	y Contact)	PVDSMN000
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	PLGMVW100

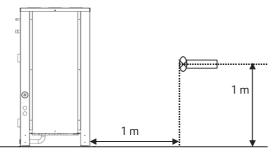
※ ○ : Applied, - : Not Applied

#### **Operation Limits**



- These figures assume the following operating conditions:
- Equivalent piping length :7.5m
   Level difference : 0m

#### Position of Sound Pressure Level Measuring



- Data is valid at free field condition
- 2. Data is valid at nominal operating condition
  3. Sound level will vary depending on a range of factors such as the construction (Acoustic absorption coefficient) of particular room in which the equipment is installed
- 4. Sound level can be increased in static pressure mode or air guide application

#### **Optional Accessories**

No.	Name	Model
		ARBLN01621
		ARBLN03321
1	Y branch pipe	ARBLN07121
		ARBLN14521
		ARBLN23220
		ARBL054
	Header	ARBL057
2		ARBL104
2		ARBL107
		ARBL1010
		ARBL2010
		ARCNN21
3	Connection pipe of Outdoor Units	ARCNN31
	Offics	ARCNN41

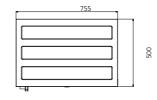
#### Multi V Water IV Heating Dissipation Value by Model

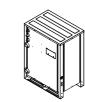
Model	HP	Heating Dissipation Value		
ARWN080LAS4	8	600 W	515.9 kcal/h	0.143 kcal/s
ARWN100LAS4	10	630 W	541.7 kcal/h	0.150 kcal/s
ARWN120LAS4	12	660 W	567.5 kcal/h	0.158 kcal/s
ARWN140LAS4	14	690 W	593.3 kcal/h	0.165 kcal/s
ARWN160LAS4	16	700 W	601.9 kcal/h	0.167 kcal/s
ARWN180LAS4	18	720 W	619.1 kcal/h	0.172 kcal/s
ARWN200LAS4	20	750 W	644.9 kcal/h	0.179 kcal/s

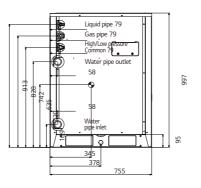
Test condition : Indoor air temperature : DB 40°C, WB : 32°C % A design stage should be considered to ventilation system

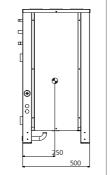
#### ARWN080LAS4 / ARWN100LAS4 ARWN140LAS4 / ARWN200LAS4

[Unit:mm]

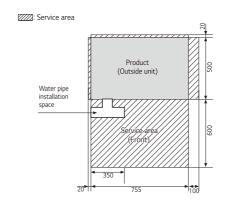




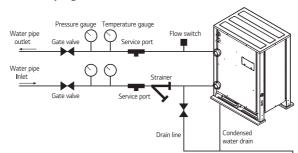




#### Individual Installation



#### Water Piping Installation



#### Precaution of Installation

- 1. Do not install the unit at the outdoors. (Installation of the unit outdoors could result in fire or electric shock.) Recommended ambient temperature of outdoor unit is between 0 ~ 40°C.
- 2. Keep the water temperature between 10 ~ 45°C. Standard water supply temperature is 30°C for cooling and 20°C for
- 3. Establish an anti-freeze plan for the water supply when the product is stopped during the winter.
- 4. Be careful of the water purity control. Ensure water purity control to avoid breakdown due to water pipe corrosion. Refer to 'Standard Table for Water Purity Control' in PDB (Product
- 5. The water pressure resistance of the water pipe system of this product is 1.98MPa.
- 6. Always install **a trap** so that the drained water does not back
- 7. Install a pressure gauge and temperature gauge at the inlet and outlet of the water pipe.
- 8. Flexible joints must be installed not to cause any leakage from the vibration of pipes.
- 9. Install a **service port** to clean the heat exchanger at the each end of the water inlet and outlet.
- 10. It is mandatory to install the **flow switch** to the water collection pipe system connecting to the outdoor unit. (Flow switch acts as the 1st protection device when the heat water is
- 11. When setting the flow switch, it is recommended to use the product with default set value to satisfy the minimum flow rate of this product. (The minimum flow rate range of this product
- 12. To protect the water cooling type product, you must install a strainer with 50 mesh or more on the heat water supply pipe. If not installed, it can result in damage of heat exchanger by the following situation.
- 1) Heat water supply within the plate type heat exchanger is composed of multiple small paths.
- 2) If you do not use a strainer with 50 mesh or more, alien particles can partially block the water paths.
- 3) When running the heater, the plate type heat exchanger plays the role of the evaporator, and at this time, the temperature of the refrigerant side drops to drop the temperature of the heat water supply, which can result in icing point in the water paths.
- 4) As the heating process progresses, the water paths can be partially frozen to lead to damage in plate type heat
- 5) As a result of the damage of the heat exchanger from the freezing, the refrigerant side and the heat water source side will be mixed to make the product unusable.

OUTDOOR UNITS TECHNICAL DATA 098 I 099

# **MULTI V WATER IV HEAT PUMP**

#### **Bouygues Challenger**

LG MULTI V Water Solution with Geothermal Application.









#### Site Information

The industrial group Bouygues was established in France in 1952. It now maintains operations in 80 countries and employs more than 131,000 people. In 1988, after two years of construction, the new headquarters for Bouygues Construction was officially opened for business. Named Challenger, the complex became a technological showcase for late 20th century architecture.

#### LG Solution

Bouygues decided to convert their headquarters into an eco-conscious building by significantly reducing its energy footprint. The LG MULTI V Water system was chosen as the ideal HVAC solution for this project. The system not only saves energy but also reduces water usage as it recycles water in order to regulate the temperature of the building. With LG's advanced technology, the building's water consumption was reduced by more than 70 percent.

#### ARWN080LAS4 / ARWN100LAS4 ARWN140LAS4



	HP		8	10	14
Madal Name	Combination Unit		ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
Model Name	Independent Unit		ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
Camanitus	Cooling (Rated)	kW	22.4	28.0	39.2
Capacity	Heating (Rated)	kW	25.2	31.5	44.1
lance.	Cooling (Rated)	kW	3.86	5.09	7.84
Input	Heating (Rated)	kW	4.2	5.34	8.17
EER			5.80	5.50	5.00
COP	Rated Capacity		6.00	5.90	5.40
Eutorion	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
Treat Extrariger	Head Loss	kPa	10.7	15.8	28.6
	Rated Water Flow	LPM	77	96	135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,200 x 1	4,200 x 1	4,200 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	2,800	2,800	2,800
Refrigerant	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
Connecting Pipes	Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø25.4 (1)
	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x	x D)	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1
Dimensions (W x H )	x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1
Net Weight		kg x No.	127 x 1	127 x 1	127 x 1
Shipping Weight		kg x No.	137 x 1	137 x 1	137 x 1
Sound Pressure	Cooling	dB(A)	47	50	58
Level	Heating	dB(A)	51	53	57
Sound Power Level	Cooling	dB(A)	59	62	70
Sound Power Level	Heating	dB(A)	63	65	69
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	5.8	5.8	5.8
nerigerant	t-CO <sub>2</sub> eq		12.108	12.108	12.108
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximun	n Connectable Indoor Uni	its	13 (20)	16 (25)	23 (35)

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification
  3. Performances are based on the following conditions
   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3741 standard.
  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

**OUTDOOR UNITS REFERENCE SITE** 

#### ARWN200LAS4 / ARWN160LAS4 ARWN180LAS4

**MULTI V WATER** 

HEAT



	HP		20	16	18
	Combination Unit		ARWN200LAS4	ARWN160LAS4	ARWN180LAS4
Model Name				ARWN080LAS4	ARWN100LAS4
	Independent Unit		ARWN200LAS4	ARWN080LAS4	ARWN080LAS4
Capacity	Cooling (Rated)	kW	56.0	44.8	50.4
capacity	Heating (Rated)	kW	63.0	50.4	56.7
Input	Cooling (Rated)	kW	11.20	7.72	8.95
прис	Heating (Rated)	kW	11.67	8.40	9.54
EER			5.00	5.80	5.63
СОР	Rated Capacity		5.40	6.00	5.94
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
,	Head Loss	kPa	30.1	10.7 + 10.7	15.8 + 10.7
	Rated Water Flow	LPM	192	77 + 77	96 + 77
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	5,300 x 1	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	3,000	5,600	5,600
Refrigerant	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connecting Pipes	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x	D)	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2
Dimensions (W x H x	D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2
Net Weight		kg x No.	140 x 1	127 x 2	127 x 2
Shipping Weight		kg x No.	150 x 1	137 x 2	137 x 2
Sound Pressure	Cooling	dB(A)	54	50	52
Level	Heating	dB(A)	60	54	55
Sound Power Level	Cooling	dB(A)	66	62	64
	Heating	dB(A)	72	66	67
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	3.0	11.6	11.6
-	t-CO <sub>2</sub> eq		6.263	24.215	24.215
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	Connectable Indoor Uni	ts	32 (50)	26 (40)	29 (45)

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3741 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWN220LAS4 / ARWN240LAS4 ARWN280LAS4



	HP		22	24	28
	Combination Unit		ARWN220LAS4	ARWN240LAS4	ARWN280LAS4
Model Name	Independent Unit		ARWN140LAS4 ARWN080LAS4	ARWN140LAS4 ARWN100LAS4	ARWN140LAS4 ARWN140LAS4
Capacity	Cooling (Rated)	kW	61.6	67.2	78.4
	Heating (Rated)	kW	69.3	75.6	88.2
Input	Cooling (Rated)	kW	11.70	12.93	15.68
прис	Heating (Rated)	kW	12.37	13.51	16.34
EER			5.26	5.20	5.00
COP	Rated Capacity		5.60	5.60	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
,	Head Loss	kPa	28.6 + 10.7	28.6 + 15.8	28.6 + 28.6
	Rated Water Flow	LPM	135 + 77	135 + 96	135 + 135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	4,200 x 2	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,600	5,600	5,600
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Threa
Dimensions (W x H	( D)	mm x No.	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2
Dimensions (W x H	c D) - Shipping	mm x No.	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2
Net Weight		kg x No.	127 x 2	127 x 2	127 x 2
Shipping Weight		kg x No.	137 x 2	137 x 2	137 x 2
Sound Pressure	Cooling	dB(A)	58	59	59
Level	Heating	dB(A)	58	58	58
Sound Power Level	Cooling	dB(A)	70	71	72
	Heating	dB(A)	70	70	71
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	11.6	11.6	11.6
<b>3</b>	t-CO <sub>2</sub> eq		24.215	24.215	24.215
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	n Connectable Indoor Uni	its	35 (44)	39 (48)	45 (56)

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

OUTDOOR UNITS SPECIFICATIONS

#### ARWN300LAS4 / ARWN340LAS4 ARWN400LAS4



**MULTI V WATER** 

HEAT

	LIB	_	20	24	40
	HP		30	34	40
Model Name	Combination Unit		ARWN300LAS4	ARWN340LAS4	ARWN400LAS4
Wodet Name	Independent Unit		ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4
Capacity	Cooling (Rated)	kW	84.0	95.2	112.0
Сарасту	Heating (Rated)	kW	94.5	107.1	126.0
Input	Cooling (Rated)	kW	16.29	19.04	22.40
Прис	Heating (Rated)	kW	17.01	19.84	23.34
EER			5.16	5.00	5.00
COP	Rated Capacity		5.56	5.40	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm²	45	45	45
,	Head Loss	kPa	30.1 + 15.8	30.1 + 28.6	30.1 + 30.1
	Rated Water Flow	LPM	192 + 96	192 + 135	192 + 192
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 1	5,300 x 1 + 4,200 x 1	5,300 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,800	5,800	6,000
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x	D)	mm x No.	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2
Dimensions (W x H x	D) - Shipping	mm x No.	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2
Net Weight		kg x No.	(140 x 1) + (127 x 1)	(140 x 1) + (127 x 1)	140 x 2
Shipping Weight		kg x No.	(150 x 1) + (137 x 1)	(150 x 1) + (137 x 1)	150 x 2
Sound Pressure	Cooling	dB(A)	55	59	55
Level	Heating	dB(A)	61	61	61
Sound Power Level	Cooling	dB(A)	67	72	68
	Heating	dB(A)	73	74	74
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	8.8	8.8	6.0
	t-CO <sub>2</sub> eq		18.370	18.370	12.525
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	Connectable Indoor Uni	ts	49 (60)	55 (64)	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3741 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWN420LAS4 / ARWN440LAS4 ARWN480LAS4



	HP		42	44	48
	Combination Unit		ARWN420LAS4	ARWN440LAS4	ARWN480LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN140LAS4 ARWN140LAS4
Canaditu	Cooling (Rated)	kW	117.6	123.2	134.4
Capacity	Heating (Rated)	kW	132.3	138.6	151.2
lance.	Cooling (Rated)	kW	22.9	24.13	26.88
Input	Heating (Rated)	kW	24.04	25.18	28.01
EER			5.14	5.11	5.00
COP	Rated Capacity		5.50	5.50	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
,	Head Loss	kPa	30.1 + 28.6 + 10.7	30.1 + 28.6 + 15.8	30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 135 + 77	192 + 135 + 96	192 + 135 + 135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	8,600	8,600	8,600
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Threa
Dimensions (W x H )	( D)	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3
Dimensions (W x H x	k D) - Shipping	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3
Net Weight		kg x No.	(140 x 1) + (127 x 2)	$(140 \times 1) + (127 \times 2)$	(140 x 1) + (127 x 2)
Shipping Weight		kg x No.	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)
Sound Pressure	Cooling	dB(A)	60	60	60
Level	Heating	dB(A)	62	62	62
Sound Power Level	Cooling	dB(A)	72	72	74
	Heating	dB(A)	74	74	76
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	14.6	14.6	14.6
,	t-CO <sub>2</sub> eq		30.478	30.478	30.478
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximun	n Connectable Indoor Uni	its	64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWN500LAS4 / ARWN540LAS4 ARWN600LAS4



**MULTI V WATER** 

HEAT

	HP		50	54	60
	Combination Unit		ARWN500LAS4	ARWN540LAS4	ARWN600LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4
Canaditus	Cooling (Rated)	kW	140.0	151.2	168.0
Capacity	Heating (Rated)	kW	157.5	170.1	189.0
lancet.	Cooling (Rated)	kW	27.49	30.24	33.60
Input	Heating (Rated)	kW	28.68	31.51	35.01
EER			5.09	5.00	5.00
COP	Rated Capacity		5.49	5.40	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
	Head Loss	kPa	30.1 + 30.1 + 15.8	30.1 + 28.6 + 28.6	30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 192 + 96	192 + 192 + 135	192 + 192+ 192
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 1	5,300 x 2 + 4,200 x 1	5,300 x 3
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	8,800	8,800	9,000
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
W. 6	Inlet	A (inch)	40A (PT 1-1/2) +40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x	D)	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3
Dimensions (W x H x	D) - Shipping	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3
Net Weight		kg x No.	(140 x 2) + (127 x 1)	(140 x 2) + (127 x 1)	140 x 3
Shipping Weight		kg x No.	(150 x 2) + (137 x 1)	(150 x 2) + (137 x 1)	150 x 3
Sound Pressure	Cooling	dB(A)	58	60	56
Level	Heating	dB(A)	63	62	62
Sound Power Level	Cooling	dB(A)	70	74	70
	Heating	dB(A)	75	76	76
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	11.8	11.8	9.0
-	t-CO <sub>2</sub> eq		24.633	24.633	18.788
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	Connectable Indoor Uni	ts	64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3741 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

ARWN620LAS4 / ARWN640LAS4 ARWN680LAS4



	HP		62	64	68
	Combination Unit		ARWN620LAS4	ARWN640LAS4	ARWN680LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN140LAS4
Canacity	Cooling (Rated)	kW	173.6	179.2	190.4
Capacity	Heating (Rated)	kW	195.3	201.6	214.2
Innut	Cooling (Rated)	kW	34.10	35.33	38.08
Input	Heating (Rated)	kW	35.71	36.85	39.68
EER			5.09	5.07	5.00
COP	Rated Capacity		5.47	5.47	5.40
F. danian	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm²	45	45	45
Treat Exeriariger	Head Loss	kPa	30.1 + 30.1 + 28.6 + 10.7	30.1 + 30.1 + 28.6 + 15.8	30.1 + 30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 192 + 135 + 77	192 + 192 + 135 + 96	192 + 192 + 135 + 135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	11,600	11,600	11,600
Refrigerant	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connecting Pipes	Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø53.98 (2-1/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Threa
Dimensions (W x H )	x D)	mm x No.	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4
Dimensions (W x H )	x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4
Net Weight		kg x No.	(140 x 2) + (127 x 2)	$(140 \times 2) + (127 \times 2)$	(140 x 2) + (127 x 2)
Shipping Weight		kg x No.	(150 x 2) + (137 x 2)	$(150 \times 2) + (137 \times 2)$	(150 x 2) + (137 x 2)
Sound Pressure	Cooling	dB(A)	61	61	61
Level	Heating	dB(A)	64	64	63
Sound Power Level	Cooling	dB(A)	73	73	75
Sound Power Level	Heating	dB(A)	76	76	77
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	17.6	17.6	17.6
30.4	t-CO <sub>2</sub> eq		36.740	36.740	36.740
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

OUTDOOR UNITS SPECIFICATIONS

#### ARWN700LAS4 / ARWN740LAS4 ARWN800LAS4



**MULTI V WATER IV** 

HEAT

	HP	_	70	74	80
	Combination Unit		ARWN700LAS4	ARWN740LAS4	ARWN800LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN200LAS4
	Cooling (Rated)	kW	196.0	207.2	224.0
Capacity	Heating (Rated)	kW	220.5	233.1	252.0
	Cooling (Rated)	kW	38.69	41.44	44.80
Input	Heating (Rated)	kW	40.35	43.18	46.68
EER			5.07	5.00	5.00
СОР	Rated Capacity		5.46	5.40	5.40
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
ricae Exchanger	Head Loss	kPa	30.1 + 30.1 + 30.1 + 15.8	30.1 + 30.1 + 30.1 + 28.6	30.1 + 30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 192 + 192 + 96	192 + 192 + 192 + 135	192 + 192 + 192 + 192
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
C	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number	W x No.	5,300 x 3 + 4,200 x 1	5,300 x 3 + 4,200 x 1	5,300 x 4
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	11,800	11,800	12,000
Refrigerant	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connecting Pipes	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x	(D)	mm x No.	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	$(755 \times 997 \times 500) \times 4$
Dimensions (W x H x	D) - Shipping	mm x No.	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4
Net Weight		kg x No.	(140 x 3) + (127 x 1)	(140 x 3) + (127 x 1)	140 x 4
Shipping Weight		kg x No.	(150 x 3) + (137 x 1)	(150 x 3) + (137 x 1)	150 x 4
Sound Pressure	Cooling	dB(A)	59	61	57
Level	Heating	dB(A)	65	63	63
Sound Power Level	Cooling	dB(A)	71	75	71
Journal ower Level	Heating	dB(A)	77	77	77
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	14.8	14.8	12.0
	t-CO <sub>2</sub> eq		30.895	30.895	25.050
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	Connectable Indoor Un	its 1)	64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWB080LAS4 / ARWB100LAS4 ARWB140LAS4



	HP		8	10	14
	Combination Unit		ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
Model Name	Independent Unit		ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
Camanita	Cooling (Rated)	kW	22.4	28.0	39.2
Capacity	Heating (Rated)	kW	25.2	31.5	44.1
lanut.	Cooling (Rated)	kW	3.86	5.09	7.84
Input	Heating (Rated)	kW	4.20	5.34	8.17
EER			5.80	5.50	5.00
COP	Rated Capacity		6.00	5.90	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm²	45	45	45
Treat Extrainger	Head Loss	kPa	10.7	15.8	28.6
	Rated Water Flow	LPM	77	96	135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,200 x 1	4,200 x 1	4,200 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	2,800	2,800	2,800
	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø25.4 (1)
commercing rapes	High Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Threa
Dimensions (W x H >	( D)	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1
Dimensions (W x H >	c D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1
Net Weight		kg x No.	127 x 1	127 x 1	127 x 1
Shipping Weight		kg x No.	137 x 1	137 x 1	137 x 1
Sound Pressure	Cooling	dB(A)	47	50	58
Level	Heating	dB(A)	51	53	57
Carrad Darram Larral	Cooling	dB(A)	59	62	70
Sound Power Level	Heating	dB(A)	63	65	69
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name	/	R410A	R410A	R410A
Dofrigorant	Precharged Amount in Factory	kg	5.8	5.8	5.8
Refrigerant	t-CO <sub>2</sub> eq		12.108	12.108	12.108
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
	n Connectable Indoor Uni		13 (20)	16 (25)	23 (35)

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

OUTDOOR UNITS SPECIFICATIONS

#### ARWB200LAS4 / ARWB160LAS4 ARWB180LAS4



**MULTI V WATER** 

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	HP		20	16	18
	Combination Unit		ARWB200LAS4	ARWB160LAS4	ARWB180LAS4
Model Name	Independent Unit		ARWB200LAS4	ARWB080LAS4 ARWB080LAS4	ARWB100LAS4 ARWB080LAS4
Capacity	Cooling (Rated)	kW	56.0	44.8	50.4
Capacity	Heating (Rated)	kW	63.0	50.4	56.7
Input	Cooling (Rated)	kW	11.20	7.72	8.95
Input	Heating (Rated)	kW	11.67	8.40	9.54
EER			5.00	5.80	5.63
COP	Rated Capacity		5.40	6.00	5.94
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
LACETIO	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
	Head Loss	kPa	30.1	10.7 + 10.7	15.8 + 10.7
	Rated Water Flow	LPM	192	77 + 77	96 + 77
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	5,300 x 1	4,200 x 2	4,200 x 2
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge	CC	3,000	5,600	5,600
Defriesment	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x	( D)	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2
Dimensions (W x H x	D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2
Net Weight		kg x No.	140 x 1	127 x 2	127 x 2
Shipping Weight		kg x No.	150 x 1	137 x 2	137 x 2
Sound Pressure	Cooling	dB(A)	54	50	52
Level	Heating	dB(A)	60	54	55
Sound Power Level	Cooling	dB(A)	66	62	64
Communication	Heating	dB(A)	72	66	67
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	3.0	11.6	11.6
	t-CO <sub>2</sub> eq		6.263	24.215	24.215
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	n Connectable Indoor Uni	ts	32(50)	26(40)	29(45)

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWB220LAS4 / ARWB240LAS4 ARWB280LAS4



	HP		22	24	28
	Combination Unit		ARWB220LAS4	ARWB240LAS4	ARWB280LAS4
Model Name	Independent Unit		ARWB140LAS4 ARWB080LAS4	ARWB140LAS4 ARWB100LAS4	ARWB140LAS4 ARWB140LAS4
Capacity	Cooling (Rated)	kW	61.6	67.2	78.4
Сарасіту	Heating (Rated)	kW	69.3	75.6	88.2
Innut	Cooling (Rated)	kW	11.70	12.93	15.68
Input	Heating (Rated)	kW	12.37	13.51	16.34
EER			5.26	5.20	5.00
COP	Rated Capacity		5.60	5.60	5.40
Eutorion	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
	Head Loss	kPa	28.6 + 10.7	28.6 + 15.8	28.6 + 28.6
	Rated Water Flow	LPM	135 + 77	135 + 96	135 + 135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	4,200 x 2	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	5,600	5,600	5,600
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
3 1	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread
Dimensions (W x H >	( D)	mm x No.	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2
Dimensions (W x H >	c D) - Shipping	mm x No.	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2
Net Weight		kg x No.	127 x 2	127 x 2	127 x 2
Shipping Weight		kg x No.	137 x 2	137 x 2	137 x 2
Sound Pressure	Cooling	dB(A)	58	59	59
Level	Heating	dB(A)	58	58	58
Sound Power Level	Cooling	dB(A)	70	71	72
	Heating	dB(A)	70	70	71
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	11.6	11.6	11.6
-	t-CO <sub>2</sub> eq		24.215	24.215	24.215
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximun	n Connectable Indoor Uni	ts	35 (44)	39 (48)	45 (56)

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWB300LAS4 / ARWB340LAS4 ARWB400LAS4



**MULTI V WATER** 

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HP         30         34         40           Combination Unit         ARWB300LAS4         ARWB340LAS4         ARWB400LAS4           Model Name         ARWB200LAS4         ARWB200LAS4         ARWB200LAS4	
Model Name  APW/R2001 ASA  APW/R2001 ASA  APW/R2001 ASA	
Model Name ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB200LAS4	
Independent Unit ARWB100LAS4 ARWB140LAS4 ARWB200LAS4	
Capacity Cooling (Rated) kW 84.0 95.2 112.0	
Heating (Rated) kW 94.5 107.1 126.0	
Cooling (Rated)   kW   16.29   19.04   22.40	
Heating (Rated) kW 17.01 19.84 23.34	
<b>EER</b> 5.16 5.00 5.00	
COP         Rated Capacity         5.56         5.40         5.40	
Color Warm Gray / Morning Gray Warm Gray / Morning Gray Warm Gray / Morning Gray	ay
RAL Code (Classic)  RAL 7044 / RAL 7030  RAL 7044 / RAL 7030  RAL 7044 / RAL 7030	
Type         Stainless Steel Plate         Stainless Steel Plate         Stainless Steel Plate	
Maximum Pressure kgf/cm <sup>2</sup> 45 45 45 45 45	
Head Loss         kPa         30.1 + 15.8         30.1 + 28.6         30.1 + 30.1	
Rated Water Flow LPM 192 + 96 192 + 135 192 + 192	
Type Hermetically Sealed Scroll Hermetically Sealed Scroll Hermetically Sealed Scroll	oll
Combination x No. (Inverter) x 2 (Inverter) x 2	
Compressor         Motor Output x Number         W x No.         5,300 x 1 + 4,200 x 1         5,300 x 1 + 4,200 x 1         5,300 x 2	
Oil Type FVC68D (PVE) FVC68D (PVE) FVC68D (PVE)	
Oil Charge         cc         5,800         5,800         6,000	
Liquid Pipe mm (inch) Ø19.05 (3/4) Ø19.05 (3/4) Ø19.05 (3/4) Ø19.05 (3/4)	
Connecting Pipes	
High Pressure Gas Pipe mm (inch) Ø28.58 (1-1/8) Ø28.58 (1-1/8) Ø34.9 (1-3/8)	
Inlet A (inch)  40A (PT 1-1/2) + 40A (PT	
Water Connecting Pipes         Outlet         A (inch)         40A (PT 1-1/2) + 40A (PT 1-1/2)         40A (PT 1-1/2) + 40A (	1/2)
Drain Outlet A (inch) 20A (PT 3/4) (External Thread) 20A (PT 3/4) (External Thread) 20A (PT 3/4) (External Thread)	ead)
Dimensions (W x H x D) mm x No. (755 x 997 x 500) x 2 (755 x 997 x 500) x 2 (755 x 997 x 500) x 2	
<b>Dimensions (W x H x D) - Shipping</b> $mm \times No.$ (804 x 1,143 x 630) x 2 (804 x 1,143 x 630) x 2	2
Net Weight kg x No. (140 x 1) + (127 x 1) (140 x 1) + (127 x 1) 140 x 2	
Shipping Weight $kg \times No.$ $(150 \times 1) + (137 \times 1)$ $(150 \times 1) + (137 \times 1)$ $150 \times 2$	
Sound Pressure Cooling dB(A) 55 59 55	
Level         Heating         dB(A)         61         61         61	
Cooling dB(A) 67 72 68  Sound Power Level	
Heating dB(A) 73 74 74	
Communication         mm² x No.           Cable         (VCTF-SB)           1.0 ~ 1.5 x 2C         1.0 ~ 1.5 x 2C           1.0 ~ 1.5 x 2C         1.0 ~ 1.5 x 2C	
Refrigerant Name R410A R410A R410A	
Precharged Amount in kg 8.8 8.8 6.0  Refrigerant	
t-CO <sub>2</sub> eq 18.370 18.370 12.525	
Control         Electronic Expansion Valve         Electronic Expansion Valve         Electronic Expansion Valve	ve
Power Supply         Ø, V, Hz         3, 380-415, 50         3, 380-415, 50         3, 380-415, 50	
Number of Maximum Connectable Indoor Units 49 (60) 55 (64) 64	

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWB420LAS4 / ARWB440LAS4 ARWB480LAS4



	HP		42	44	48
	Combination Unit		ARWB420LAS4	ARWB440LAS4	ARWB480LAS4
Model Name	Independent Unit		ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB140LAS4 ARWB140LAS4
Capacity	Cooling (Rated)	kW	117.6	123.2	134.4
Capacity	Heating (Rated)	kW	132.3	138.6	151.2
	Cooling (Rated)	kW	22.9	24.13	26.88
Input	Heating (Rated)	kW	24.04	25.18	28.01
EER			5.14	5.11	5.00
COP	Rated Capacity		5.50	5.50	5.40
e	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
	Head Loss	kPa	30.1 + 28.6 + 10.7	30.1 + 28.6 + 15.8	30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 135 + 77	192 + 135 + 96	192 + 135 + 135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	8,600	8,600	8,600
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Threa
Dimensions (W x H :	x D)	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3
Dimensions (W x H :	x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3
Net Weight		kg x No.	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)
Shipping Weight		kg x No.	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)
Sound Pressure	Cooling	dB(A)	60	60	60
Level	Heating	dB(A)	62	62	62
s 15 1 1	Cooling	dB(A)	72	72	74
Sound Power Level	Heating	dB(A)	74	74	76
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	14.6	14.6	14.6
,	t-CO <sub>2</sub> eq		30.478	30.478	30.478
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	n Connectable Indoor Uni	ts	64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

OUTDOOR UNITS SPECIFICATIONS

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**MULTI V WATER IV** 

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	НР		50	54	60
	Combination Unit		ARWB500LAS4	ARWB540LAS4	ARWB600LAS4
Model Name	Independent Unit		ARWB200LAS4 ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4
Capacity	Cooling (Rated)	kW	140.0	151.2	168.0
Сарастсу	Heating (Rated)	kW	157.5	170.1	189.0
Input	Cooling (Rated)	kW	27.49	30.24	33.60
Прис	Heating (Rated)	kW	28.68	31.51	35.01
EER			5.09	5.00	5.00
COP	Rated Capacity		5.49	5.40	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
LACETIO	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Maximum Pressure Resistance		kgf/cm <sup>2</sup>	45	45	45
,	Head Loss	kPa	30.1 + 30.1 + 15.8	30.1 + 28.6 + 28.6	30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 192 + 96	192 + 192 + 135	192 + 192+ 192
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 1	5,300 x 2 + 4,200 x 1	5,300 x 3
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	8,800	8,800	9,000
D. C	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
, ,	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x	D)	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3
Dimensions (W x H x	D) - Shipping	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3
Net Weight		kg x No.	(140 x 2) + (127 x 1)	(140 x 2) + (127 x 1)	140 x 3
Shipping Weight		kg x No.	(150 x 2) + (137 x 1)	(150 x 2) + (137 x 1)	150 x 3
Sound Pressure	Cooling	dB(A)	58	60	56
Level	Heating	dB(A)	63	62	62
Sound Power Level	Cooling	dB(A)	70	74	70
	Heating	dB(A)	75	76	76
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	11.8	11.8	9.0
	t-CO <sub>2</sub> eq		24.633	24.633	18.788
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	Connectable Indoor Uni	ts	64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

#### ARWB620LAS4 / ARWB640LAS4 ARWB680LAS4



	HP		62	64	68
	Combination Unit		ARWB620LAS4	ARWB640LAS4	ARWB680LAS4
Model Name	Independent Unit		ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB140LAS4
Capacity	Cooling (Rated)	kW	173.6	179.2	190.4
Сарасіту	Heating (Rated)	kW	195.3	201.6	214.2
lance.	Cooling (Rated)	kW	34.10	35.33	38.08
Input	Heating (Rated)	kW	35.71	36.85	39.68
EER			5.09	5.07	5.00
COP	Rated Capacity		5.47	5.47	5.40
e	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	45
	Head Loss	kPa	30.1 + 30.1 + 28.6 + 10.7	30.1 + 30.1 + 28.6 + 15.8	30.1 + 30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 192 + 135 + 77	192 + 192 + 135 + 96	192 + 192 + 135 + 135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	11,600	11,600	11,600
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
	Low Pressure Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø53.98 (2-1/8)
connecting ripes	High Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø44.5 (1-3/4)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/ + 40A (PT 1-1/2) + PT40 (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/ + 40A (PT 1-1/2) + PT40 (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Threa
Dimensions (W x H )	( D)	mm x No.	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4
Dimensions (W x H x	c D) - Shipping	mm x No.	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4
Net Weight		kg x No.	(140 x 2) + (127 x 2)	$(140 \times 2) + (127 \times 2)$	$(140 \times 2) + (127 \times 2)$
Shipping Weight		kg x No.	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)	$(150 \times 2) + (137 \times 2)$
Sound Pressure	Cooling	dB(A)	61	61	61
Level	Heating	dB(A)	64	64	63
Sound Power Level	Cooling	dB(A)	73	73	75
Journa Fower Level	Heating	dB(A)	76	76	77
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	17.6	17.6	17.6
	t-CO <sub>2</sub> eq		36.740	36.740	36.740
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	n Connectable Indoor Uni	its	64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditions during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)

OUTDOOR UNITS SPECIFICATIONS

#### ARWB700LAS4 / ARWB740LAS4 ARWB800LAS4



Model Name						
Model Name         ARWB200LAS4 ARWB20LAS4 ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 AR		HP		70	74	80
Model Name		Combination Unit		ARWB700LAS4	ARWB740LAS4	ARWB800LAS4
Capacity         Heating (Rated)         kW         220.5         233.1         252.0           Input         Cooling (Rated)         kW         38.69         41.44         44.80           EER         Feed (Cooling (Rated)         kW         40.35         43.18         46.68           EER         Feed (Cooling (Rated)         kW         5.07         5.00         5.00           COP         Rate Capacity         So.76         5.00         5.40         5.40           Exterior         RAL Code (Classic)         Warm Gray / Morning Gray         RAL 7004 / RAL 7030         RAL 7004 / RAL 7030         RAL 7044 / RAL 7030<	Model Name	Independent Unit		ARWB200LAS4 ARWB200LAS4	ARWB200LAS4 ARWB200LAS4	ARWB200LAS4 ARWB200LAS4
Pacing (Rated)   RW   220.5   233.1   252.0     Page   Cooling (Rated)   RW   38.69   41.44   44.80     Heating (Rated)   RW   40.35   43.18   46.68     EER	Canacity	Cooling (Rated)	kW	196.0	207.2	224.0
	Сарасіту	Heating (Rated)	kW	220.5	233.1	252.0
FER	lame.	Cooling (Rated)	kW	38.69	41.44	44.80
COP         Rated Capacity         5.46         5.40         5.40         Section         Color         Varm Gray / Morning Gray         Warm Gray / Morning Gray         Reford All (70.40)         Reford All (70.40)         Reform Cold (70.44) Rel (70.30)         Reform Cold (70.44) Rel (70.44)         Reform Cold (70.44)	input	Heating (Rated)	kW	40.35	43.18	46.68
Pacterior   Color   Marm Gray / Morning Gray   Mal Code (Classic)   RAL Toda / RAL Toda 0   R	EER			5.07	5.00	5.00
Type	COP	Rated Capacity		5.46	5.40	5.40
Mach	Futaviau	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
Heat Exchanger         Resistance Resistance Resistance         kgf (m²)         45         45         45           Read Uoss         kPa         30.1 + 30.1 + 30.1 + 15.8         30.1 + 30.1 + 28.6         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1 + 28.6         30.1 + 30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1 + 30.1         30.1 + 30.1	Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
Resistance		Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Part	Heat Exchanger		kgf/cm <sup>2</sup>	45	45	45
Type         Hermetically Sealed Scroll         (Inverter) x 4		Head Loss	kPa	30.1 + 30.1 + 30.1 + 15.8	30.1 + 30.1 + 30.1 + 28.6	30.1 + 30.1 + 30.1 + 30.1
Compressor         Combination x No.         (Inverter) x 4         (Inverter) x 4         (Inverter) x 4           Compressor         Motor Output x Mother         W x No.         5,300 x 3 + 4,200 x 1         5,300 x 3 + 4,200 x 1         5,300 x 4           Oil Type         FVC68D (PVE)         FVC68D (PVE)         FVC68D (PVE)         FVC68D (PVE)           Refrigerant Connecting Pipes         Liquid Pipe         mm (inch)         Ø22.2 (7/8)         Ø53.98 (2-1/8)         Ø53.98 (2-1/8)           Billet         A (inch)         Ø40A (PT 1-1/2) + 40A (PT 1-1/2)         40A (PT 1-1/2) + 40A (PT 1-1/2)         40A (PT 1-1/2) + PT4O (Internal Thread)         Water Connecting Pipes         √40A (PT 1-1/2) + 40A (PT 1-1/2) + PT4O (Internal Thread)         √40A (PT 1-1/2) +		Rated Water Flow	LPM	192 + 192 + 192 + 96	192 + 192 + 192 + 135	192 + 192 + 192 + 192
Compressor         Motor Output x Number         W x No.         5,300 x 3 + 4,200 x 1         5,300 x 3 + 4,200 x 1         5,300 x 4           Oil Type         FVC68D (PVE)         FVC68D (PVE)         FVC68D (PVE)         FVC68D (PVE)           Refrigerant Connecting Pipes         Liquid Pipe         mm (inch)         Ø22.2 (7/8)         Ø22.2 (7/8)         Ø22.2 (7/8)           Water Connecting Pipes         Pigh Pressure Gas Pipe mm (inch)         Ø53.98 (2-1/8)         Ø53.98 (2-1/8)         Ø53.98 (2-1/8)           Water Connecting Pipes         Inlet         A (inch)         40A (PT 1-1/2) +		Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Number   W No.   S,300 x 3 + 4,200 x 1   S,300 x 3 +				(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Dil Charge   C	Compressor		W x No.	5,300 x 3 + 4,200 x 1	5,300 x 3 + 4,200 x 1	5,300 x 4
Refrigerant Connecting Pipes   Liquid Pipe   mm (inch Connecting Pipes   Liquid Pipe   mm (inch High Pressure Gas Pipe High Pressure Gas Pipe High Pressure Gas Pipe Heating   dB(A)   dA(A (inch High Pressure Gas Pipe Heating High Pressure Gas Pipe Heating   dB(A)   dB(A)		Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
Low Pressure Gas Pipe   mm (inch		Oil Charge	CC	11,800	11,800	12,000
Connecting Pipes         Low Pressure Gas Pipe in min (inch)         Ø3.9.3.98 (2-1/8)         Ø3.5.98 (2-1/8)         Ø3.49 (2-18)         Ø3.5.98 (2-1/8)         Ø3.5.98 (2-1/8)         Ø3.5.98 (2-1/8)         Ø3.49 (2-18)         Ø3.49 (2-18)         Ø3.49 (2-18)         Ø4.5 (1-3/4)         Ø4.4.5 (1-3/4)         Ø4.4.5 (1-3/4)         Ø4.4.5 (1-3/4)         Ø4.0 (PT 1-1/2) + 40A (PT 1-1/2) + 70A (Internal Thread)         Ø4.0 (PT 1-1/2) + PT40 (Internal Thread)         Ø4.0 (PT 1-1/2) + 70A (PT 1-1/2) + 40A (PT 1	D. C	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
High Pressure Gas Pipe mm (inch)		Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Water Connecting Pipes         Inlet         A (inch)         + 40A (PT 1-1/2) + PT40 (internal Thread) (internal Thread) (internal Thread) (internal Thread) (internal Thread)         + 40A (PT 1-1/2) + PT40 (internal Thread) (internal Thread)         40A (PT 1-1/2) + PT40 (internal Thread) (internal Thread)         40A (PT 1-1/2) + PT40 (internal Thread)         40A (PT 1-1/2) + PT40 (internal Thread)         20A (PT 3/4) (External Thread) (internal Thread)         20A (PT 3/4) (External Thread) (internal Thread) (internal Thread)           Dimensions (W x H x D)         mm x No.         (755 x 997 x 500) x 4         (804 x 1,143 x 630) x 4	<b>5</b> · <b>F</b>	High Pressure Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)
Pipes         Outlet         A (inch)         4 (inch)         4 (inch (internal Thread))         4 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (internal Thread)         4 40A (PT 1-1/2) + PT40 (internal Thread)         20A (PT 3/4) (External Thread)<		Inlet	A (inch)	+ 40A (PT 1-1/2) + PT40	+ 40A (PT 1-1/2) + PT40	+ 40A (PT 1-1/2) + PT40
Dimensions (W x H x D)         mm x No.         (755 x 997 x 500) x 4         (804 x 1,143 x 630) x 4         (140 x 3) (127 x 1)         (150 x 3) (127 x 1)         (150 x 3) (137 x 1)         (150 x 3) (13		Outlet	A (inch)	+ 40A (PT 1-1/2) + PT40	+ 40A (PT 1-1/2) + PT40	+ 40A (PT 1-1/2) + PT40
Dimensions (W x H x D) - Shipping         mm x No.         (804 x 1,143 x 630) x 4         (140 x 3) (127 x 1)         (150 x 3) (137 x		Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Net Weight         kg x No.         (140 x 3) + (127 x 1)         (140 x 3) + (127 x 1)         140 x 4           Shipping Weight         kg x No.         (150 x 3) + (137 x 1)         (150 x 3) + (137 x 1)         150 x 4           Sound Pressure Level         Cooling         dB(A)         59         61         57           Heating         dB(A)         65         63         63           Sound Power Level         Cooling         dB(A)         71         75         71           Heating         dB(A)         77         77         77         77           Communication Cable         Refrigerant Name         R410A         R410A         R410A         R410A           Refrigerant Name         R410A         R410A         R410A         R410A         R410A           Refrigerant Name         R410A         R410A         R410A         R410A         R410A           Refrigerant Name         R410A         R410A<	Dimensions (W x H x	D)	mm x No.	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4
Shipping Weight         kg x No.         (150 x 3) + (137 x 1)         (150 x 3) + (137 x 1)         150 x 4           Sound Pressure Level         Cooling         dB(A)         59         61         57           Heating         dB(A)         65         63         63           Sound Power Level         Cooling         dB(A)         71         75         71           Heating         dB(A)         77         77         77         77           Communication Cable         Refrigerant Name         R410A         R410A         R410A         R410A           Refrigerant Name         R410A         R410A         R410A         R410A           Precharged Amount in Factory         kg         14.8         14.8         12.0           TCO₂eq         30.895         30.895         25.050           Control         Electronic Expansion Valve         Electronic Expansion Valve         Electronic Expansion Valve           Power Supply         Ø, V, Hz         3,380-415,50         3,380-415,50         3,380-415,50	Dimensions (W x H x	D) - Shipping	mm x No.	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4
Sound Pressure Level         Cooling         dB(A)         59         61         57           Bound Power Level         Heating         dB(A)         65         63         63           Sound Power Level         Cooling         dB(A)         71         75         71           Heating         dB(A)         77         77         77           Communication Cable         mm² x No. (VCTF-SB)         1.0 - 1.5 x 2C         1.0 - 1.5 x 2C         1.0 - 1.5 x 2C           Refrigerant Name         R410A         R410A         R410A         R410A           Precharged Amount in Factory         kg         14.8         14.8         12.0           1-CO <sub>2</sub> eq         30.895         30.895         25.050           Control         Electronic Expansion Valve         Electronic Expansion Valve         Electronic Expansion Valve           Power Supply         Ø, V, Hz         3,380-415,50         3,380-415,50         3,380-415,50	Net Weight		kg x No.	(140 x 3) + (127 x 1)	$(140 \times 3) + (127 \times 1)$	140 x 4
Level         Heating         dB(A)         65         63         63           Sound Power Level         Cooling         dB(A)         71         75         71           Heating         dB(A)         77         77         77           Communication Cable         mm² x No. (VCTF-SB)         1.0 - 1.5 x 2C         1.0 - 1.5 x 2C         1.0 - 1.5 x 2C           Refrigerant Name         R410A         R410A         R410A         R410A           Precharged Amount in Factory         kg         14.8         14.8         12.0           t-CO <sub>2</sub> eq         30.895         30.895         25.050           Control         Electronic Expansion Valve         Electronic Expansion Valve         Electronic Expansion Valve           Power Supply         Ø, V, Hz         3, 380-415, 50         3, 380-415, 50         3, 380-415, 50	Shipping Weight		kg x No.	(150 x 3) + (137 x 1)	$(150 \times 3) + (137 \times 1)$	150 x 4
Sound Power Level         Cooling         dB(A)         71         75         71           Communication Cable         mm² x No. (VCTF-SB)         1.0 - 1.5 x 2C         1.0 - 1.5 x 2C         1.0 - 1.5 x 2C           Refrigerant Name         R410A         R410A         R410A           Precharged Amount in Factory         kg         14.8         14.8         12.0           Factory         30.895         30.895         25.050           Control         Electronic Expansion Valve         Electronic Expansion Valve         Electronic Expansion Valve           Power Supply         Ø, V, Hz         3,380-415,50         3,380-415,50         3,380-415,50	Sound Pressure	Cooling	dB(A)	59	61	57
Sound Power Level         Heating         dB(A)         77         77         77           Communication Cable         mm² x No. (VCTF-SB)         1.0 - 1.5 x 2C           Refrigerant Name         R410A	Level	Heating	dB(A)	65	63	63
Heating   Heat	Sound Power Lovel	Cooling	dB(A)	71	75	71
Cable         (VCTF-SB)         1.0 - 1.5 x 2C         1	Journa i ower Level	Heating	dB(A)	77	77	77
Refrigerant         Precharged Amount in Factory t-CO2-eq         kg         14.8         14.8         12.0           t-CO2-eq         30.895         30.895         25.050           Control         Electronic Expansion Valve         Electronic Expansion Valve         Electronic Expansion Valve           Power Supply         Ø, V, Hz         3, 380-415, 50         3, 380-415, 50         3, 380-415, 50				1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
Refrigerant         Factory t-CO <sub>2</sub> eq         kg         14.6         14.8         12.0           t-CO <sub>2</sub> eq         30.895         30.895         25.050           Control         Electronic Expansion Valve         Electronic Expansion Valve         Electronic Expansion Valve           Power Supply         Ø, V, Hz         3, 380-415, 50         3, 380-415, 50         3, 380-415, 50				R410A	R410A	R410A
Control Electronic Expansion Valve Electronic Expansion Valve Electronic Expansion Valve  Power Supply Ø, V, Hz 3, 380-415, 50 3, 380-415, 50 3, 380-415, 50	Refrigerant		kg		1 112	
Power Supply         Ø, V, Hz         3, 380-415, 50         3, 380-415, 50         3, 380-415, 50		t-CO <sub>2</sub> eq		30.895	30.895	25.050
		Control		Electronic Expansion Valve	Electronic Expansion Valve	·
Number of Maximum Connectable Indoor Units 64 64 64	Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
	Number of Maximum	Connectable Indoor Uni	ts	64	64	64

- Note

  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.

  2. Due to our policy of innovation some specifications may be changed without notification

  3. Performances are based on the following conditions

   Cooling: Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)

   Heating: Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)

   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.

  4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

  Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

  Therefore, these values can be increased owing to ambient conditors during operation.

  5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)

  6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (S0°F), and change the DIP switch on main PCB. (For more information on installation section.)


# 118-191

# **INDOOR UNITS**



INDOOR UNITS 118 I 119

# **SMART**



#### Features & Benefits

- 6 Different discharge angles can be programmed via the remote controller.
- Easily detachable full surface cover helps to clean the air conditioner.
- Drain pipe can be easily hidden from sight.

#### **Key Applications**

- Retail • Hotel Restaurant
- Multi-family Residence
- Office

W.	ALL MOUNTED	ARTCOOL MIRROR	ARTCOOL GALLERY	STANDARD
Smart	Wi-Fi	0	0	0
Energy Efficiency	Energy Display	0	0	0
Fast Cooling &	Jet Cool	0	0	0
Heating	Auto Swing (Up & Down)	0	0	0
	lonizer	0	-	○ ~7.1kW Only
Health	Pre Filter	0	0	0
	Auto Cleaning	0	0	0
	Sleep Mode	0	0	0
Comfort	Timer (On / Off)	0	0	0
	Timer (Weekly)	0	0	0
	Two Thermistor Control	0	0	0
	Group Control	0	0	0

※ ○: Applied, - : Not applied

# Wi-Fi Control

Anytime, anywhere access to the unit with Android & iOS-based smartphones.



#### LG ThinQ

Search "LG ThinQ" on Google market or the App Store to download the app.

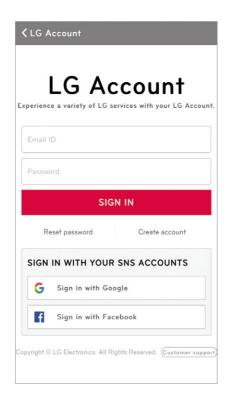
#### **Integrated Home Appliances Control**

Control / Monitor all your LG appliances from one place.



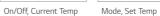
#### Easy Registration and Log-in

Follow the easy set-up steps that will activate LG ThinQ's user-friendly features.



#### Simple operation for various functions







Vane Control

#### Straight forward Management

Energy Monitoring







Filter Management

INDOOR UNITS

# Wi-Fi Control

Anytime, anywhere access to the unit with Android & iOS-based smartphones.



#### LG ThinQ

Search "LG ThinQ" on Google market or the App Store to download the app.

#### Access your air conditioner anytime and from anywhere

with a Wi-Fi equipped device and LG's exclusive control app, LG ThinQ.



#### Wi-Fi Connectivity

Each user can set and save temperature and fan speed preferences in the LG ThinQ app. If a household has more than one indoor unit, separate temperature settings can be set for each.

#### Multiple Devices



X Can be controlled by multiple users, but not simultaneously

#### Multi-Control



# **Ionizer**PLUS

The powerful Ionizer protects you from bad odors and Escherichia coli and Staphylococcus in the surface with over 3 million ions to reduce to make a safer, and cleaner environment.

% Specifications may vary for each model.% Depending on the experimental conditions.

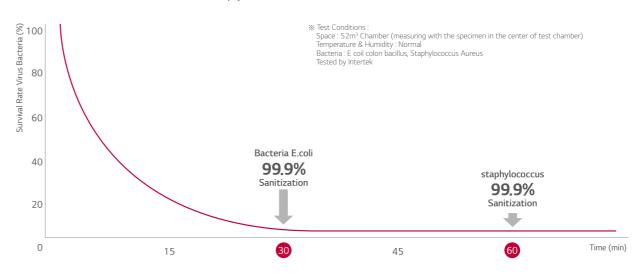
#### Reduction and Deodorization (Utilizes Over 3 Million Ions)

Ionizer+ reduces E.coli and Staphylococcus in the surface with over 3 million ions.



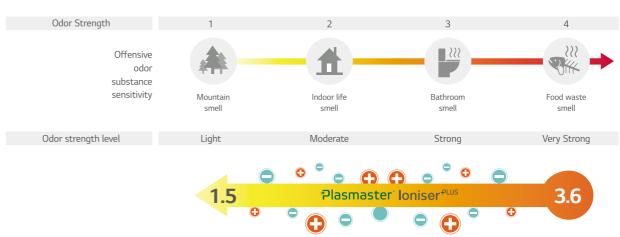
#### Reduction Performance Evaluations

Reduce Bacteria E.coli over 99.9% in 30 min. and staphylococcus over 99.6% in 60min.



#### 2.1 odor strength decrease in 60 minutes

An odor of measured as 2 European odor units (ouE/m³) or less indicates that the level of odor falls within permissible limits.



Odor strength reduce 3.6 → 1.5 / The Odor floating in the room as well as curtain and clothes.

Test conditions: Space: 8m³ Chamber
 Temperature & Humidify: Normal
 Tested by Intertek

**FAST COOLING & HEATING** 

# **Auto Cleaning**

The unit has a self-cleaning function that dries the heat exchanger before cleaning the interior.

#### Pain Point

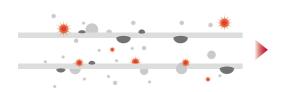
The main cause of odor within air conditioners is mold and bacteria growing on the heat exchanger. These germs can spread when the heat exchanger is wet.



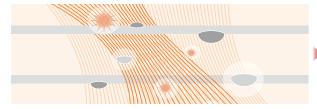
#### Cleans Filter with Regular Airflow

The comprehensive auto cleaning function prevents the formation of bacteria and mold on the heat exchanger.





By dehumidifying, (Some models are by dehumififying and ionizing), the auto cleaning function prevents potentially harmful substances from forming on the surface of the heat exchanger.



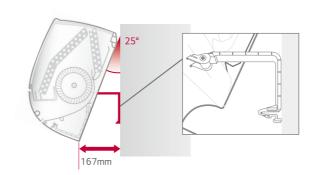


The indoor environment remains odorless with the advanced deodorizing function.

By preventing pollution of the heat exchanger caused by various germs and bacteria, performance and lifespan of the air conditioner can be increased by 10 years.

# **Installation Support Clip**

A support clip creates adequate space between the wall and the unit for easier installation.



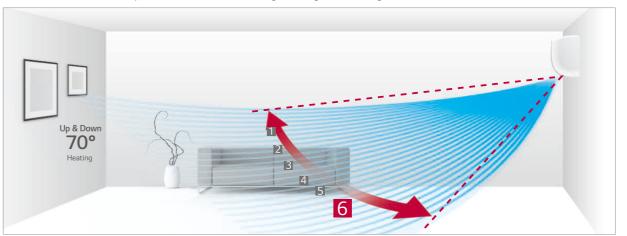
# **Auto Swing**

Cool air extends to the entire room regardless of where the unit is situated.

% Specifications may vary for each model.

#### 6-Step Vane Control up to 70°

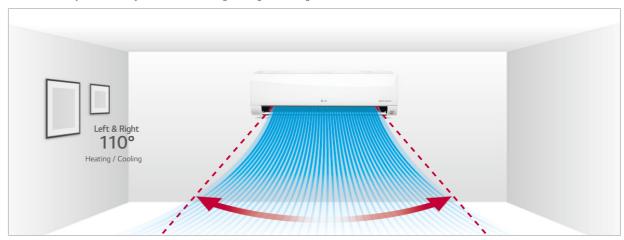
The vertical vane, which moves up and down, has 6 different settings including full-auto swing.



\* Angle can be different from each model and working mode.

#### Control up to 110°

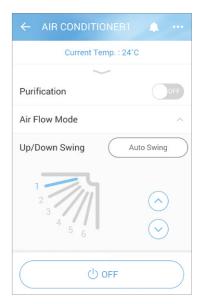
Louver can be adjusted manually to extend left and right swing to 110 degrees.



 $\ensuremath{\mathbb{X}}$  Angle can be different from each model and working mode.

#### Easy and Simple Control

Airflow direction can be changed by LG ThinQ Wi-Fi app.



Up / Down Swing

COMFORT

# **Jet Cool**

LG air conditioners provide optimized high-speed airflow, which can cool rooms faster while delivering cool air evenly in every direction.

Specifications may vary for each model.Depending on the experimental conditions.

#### One Click "Jet Mode"

Reduces the temperature of outflowing air to 18°C for 30 minutes with just one click.



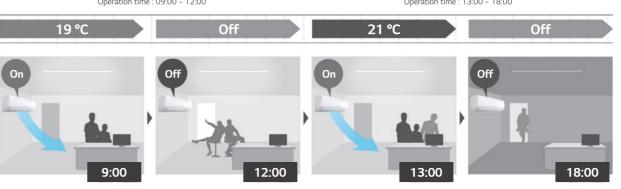
#### More Powerful Performance

By reducing the second vortex, which decreases airflow within the air outlet, and enlarging the fan size, the amount of air flow is increased to 13 CMM.



# **Scheduled Operation**

You can set the daily temperature, fan speed, the operation mode and automatic On / Off time for two weeks. It will keep running on that time until cancelled by the user.



# **Two Thermistors Control**

The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. There may be a significant difference between ceiling and floor air temperature. Two thermistors can optimise indoor air temperature for a more comfortable environment.



# **Group Control**

Group control by new remote controller (PREMTB100 /PREMTBB10) has more functions than previous model.



#### ARNU18GSKR4 / ARNU24GSKR4

#### ARNU05GSJR4 / ARNU07GSJR4 ARNU09GSJR4 / ARNU12GSJR4 ARNU15GSJR4



	MODEL	UNIT	ARNU05GSJR4	ARNU07GSJR4	ARNU09GSJR4	ARNU12GSJR4	ARNU15GSJR4
Cooling Capa	city	kW	1.6	2.2	2.8	3.6	4.5
Heating Capa	city	kW	1.8	2.5	3.2	4.0	5.0
Power Input (H / M / L)	Nominal	W	11 / 10 / 9	12/11/9	13/12/9	15 / 13 / 11	23 / 18 / 11
Exterior Colo	r		Mirror (Black)				
RAL Code			RAL 9005				
Dimensions	Body	mm	837 x 308 x 192				
$(W \times H \times D)$	Shipping	mm	909 x 383 x 256				
	Туре		Cross Flow Fan				
Fan	Motor Output x Number	W x No.	30 x 1				
гап	Air Flow Rate (H / M / L)	m³/min	6.8 / 6.5 / 5.9	7.2 / 6.8 / 5.9	7.8 / 7.2 / 5.9	8.5 / 7.8 / 6.8	10.5 / 9.5 / 6.8
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)				
Weight	Body	kg	9.2	9.2	9.2	9.2	9.2
Sound Pressu	re Levels (H / M / L)	dB(A)	30 / 29 / 28	32 / 30 / 28	34 / 32 / 28	37 / 34 / 30	42 / 39 / 32
Sound Power	Levels (H / M / L)	dB(A)	54 / 53 / 52	54 / 53 / 52	55 / 54 / 52	55 / 54 / 53	58 / 56 / 54
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C				

- Note:

  1. Performance tested under EN14511

  2. Capacities are based on the following conditions

   Cooling Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU05GSJR4 ARNU07GSJR4 ARNU09GSJR4 ARNU12GSJR4 ARNU15GSJR4			
Drain Pump	-			
Cassette Cover	-			
Refrigerant Leakage Detector	PRLDNVS0			
EEV Kit	PRGK024A0			
Independent Power Module	PRIPO			
Robot Cleaner	·			
Pre Filter (Washable)	0			
Ion Generator	0			
CO <sub>2</sub> Sensor	·			
Ventilation Kit	-			
IR Receiver	·			
Zone Controller	-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi	0			

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table



	MODEL	UNIT	ARNU18GSKR4	ARNU24GSKR4
Cooling Capa	city	kW	5.6	7.1
Heating Capa	city	kW	6.3	7.5
Power Input (H / M / L)	Nominal	W	32 / 26 / 16	39 / 26 / 16
Exterior Colo	r		Mirror (Black)	Mirror (Black)
RAL Code			RAL 9005	RAL 9005
Dimensions	Body	mm	998 x 345 x 212	998 x 345 x 212
$(W \times H \times D)$	Shipping	mm	1,080 x 422 x 281	1,080 x 422 x 281
	Туре		Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	58 x 1	58 x 1
гап	Air Flow Rate (H / M / L)	m³/min	14.0 / 12.0 / 10.5	14.0 / 12.0 / 10.5
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16(5/8)	Ø16(5/8)
Weight	Body	kg	13.4	13.4
Sound Pressu	re Levels (H / M / L)	dB(A)	43 / 39 / 34	46 / 41 / 34
Sound Power	Levels (H / M / L)	dB(A)	63 / 57 / 54	65 / 60 / 54
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- Note:

  1. Performance tested under EN14511

  2. Capacities are based on the following conditions

   Cooling Indoor temp. 27°C (80.6°F.) DB / 19°C (66.2°F.) WB, Outdoor temp. 35°C (95°F.) DB / 24°C (75.2°F.) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F.) DB / 15°C (59°F.) WB, Outdoor temp. 7°C (44.6°F.) DB / 6°C (42.8°F.) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU18GSKR4	ARNU24GSKR4	
Drain Pump	-		
Cassette Cover	· ·		
Refrigerant Leakage Detector	PRLDN	VS0	
EEV Kit	PRGK02	24A0	
Independent Power Module	PRIPO		
Robot Cleaner	-		
Pre Filter (Washable)	0		
Ion Generator	0		
CO <sub>2</sub> Sensor	-		
Ventilation Kit	-		
IR Receiver	-		
Zone Controller	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi	0		

O : Applied, - : Not applied
 Option : Refer to model name in table

INDOOR UNITS SPECIFICATIONS 128 I 129

**STANDARD** 

#### ARNU05GSJ\*4 / ARNU07GSJ\*4 / ARNU09GSJ\*4 ARNU12GSJ\*4 / ARNU15GSJ\*4



	MODEL	UNIT	ARNU07GSF14	ARNU09GSF14	ARNU12GSF14
Cooling Capa	city	kW	2.2	2.8	3.6
Heating Capa	city	kW	2.5	3.2	4.0
Power Input (H / M / L)	Nominal	W	28 / 16 / 10	28 / 16 / 10	32 / 20 / 12
Dimensions	Body	mm	600 x 600 x 146	600 x 600 x 146	600 x 600 x 146
$(W \times H \times D)$	Shipping	mm	685 x 670 x 215	685 x 670 x 215	685 x 670 x 215
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
Fan	Motor Output x Number	W x No.	30 x 1	30 x 1	30 x 1
гап	Air Flow Rate (H / M / L)	m³/min	8.1 / 6.3 / 4.2	8.1 / 6.3 / 4.2	9.3 / 7.7 / 6.0
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)
Weight	Body	kg	15.0	15.0	15.0
Sound Pressu	re Levels (H / M / L)	dB(A)	38 / 32 / 27	38 / 32 / 27	44 / 38 / 32
Sound Power	Levels (H / M / L)	dB(A)	48 / 46 / 41	48 / 46 / 41	54 / 46 / 38
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

ARNU07GSF14 / ARNU09GSF14

ARNU12GSF14

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F;) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

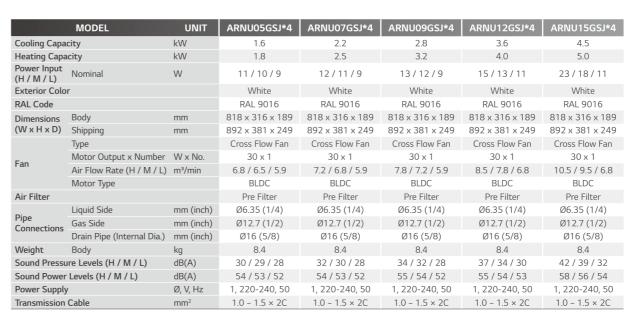
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU07GSF14	ARNU09GSF14	ARNU12GSF14	
Drain Pump		-		
Cassette Cover		-		
Refrigerant Leakage Detector		PRLDNVS0		
EEV Kit	PRGK024A0			
Independent Power Module	PRIPO			
Robot Cleaner	·			
Pre Filter (Washable)	0			
Ion Generator		-		
CO <sub>2</sub> Sensor		-		
Ventilation Kit		-		
IR Receiver		-		
Zone Controller		-		
Dry Contact (with additional accessory)  PDRYCB000 (1 point contact), PDRYCB320 (Universal input PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 point)		0		
Wi-Fi		PWFMDD200 <sup>1)</sup>		

※ O : Applied, - : Not applied Option : Refer to model name in table 1) External installation only



 $\ensuremath{^*}$  : N or C can be applied which has little bit different shape of panel.

Note : 1. Performance tested under EN14511

2. Capacities are based on the following conditions

2. Capacities are Joseph Theoretical Transport (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero - Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero 3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU05GSJ*4	ARNU07GSJ*4	ARNU09GSJ*4	ARNU12GSJ*4	ARNU15GSJ*4
Drain Pump			-		
Cassette Cover	-				
Refrigerant Leakage Detector	PRLDNVS0				
EEV Kit			PRGK024A0		
Independent Power Module	PRIP0				
Robot Cleaner	·				
Pre Filter (Washable)	0				
Ion Generator			0		
CO <sub>2</sub> Sensor			-		
Ventilation Kit			-		
IR Receiver			-		
Zone Controller			-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 point)			0		
Wi-Fi			0		

※ ○ : Applied, - : Not applied Option : Refer to model name in table

INDOOR UNITS SPECIFICATIONS 130 I 131

INDOOR UNITS

	MODEL	UNIT	ARNU18GSK*4	ARNU24GSK*4
Cooling Capacity		kW	5.6	7.1
Heating Capa	city	kW	6.3	7.5
Power Input (H / M / L)	Nominal	W	32 / 26 / 16	39 / 26 / 16
Exterior Colo	r		White	White
RAL Code			RAL 9016	RAL 9016
Dimensions	Body	mm	975 x 354 x 209	975 x 354 x 209
$(W \times H \times D)$	Shipping	mm	1,063 x 420 x 274	1,063 x 420 x 274
	Туре		Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	58 x 1	58 x 1
гап	Air Flow Rate (H / M / L)	m³/min	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	12.2	12.2
Sound Pressu	re Levels (H / M / L)	dB(A)	43 / 39 / 34	46 / 41 / 34
Sound Power	Levels (H / M / L)	dB(A)	63 / 57 / 54	65 / 60 / 54
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C

 $<sup>\</sup>mbox{\ensuremath{\star}}$  : N or C can be applied which has little bit different shape of panel.

#### Accessories

CHASSIS	ARNU18GSK*4	ARNU24GSK*4			
Drain Pump		-			
Cassette Cover	-				
Refrigerant Leakage Detector	PRLD	NVS0			
EEV Kit	PRGKO	024A0			
Independent Power Module	PR	IPO			
Robot Cleaner		-			
Pre Filter (Washable)	0				
Ion Generator	0				
CO <sub>2</sub> Sensor	-				
Ventilation Kit	·				
IR Receiver	-	-			
Zone Controller	-	-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB400 (2 points inpu				
External Input (1 point)					
Wi-Fi					

<sup>※</sup> O : Applied, - : Not applied Option : Refer to model name in table



ARNU30GSVA4 / ARNU36GSVA4

	MODEL	UNIT	ARNU30GSVA4	ARNU36GSVA4
Cooling Capacity		kW	8.8	10.4
Heating Capa	city	kW	9.4	10.8
Power Input (H / M / L)	Nominal	W	54 / 43 / 31	85 / 51 / 36
Exterior Colo	r		White	White
RAL Code			RAL 9016	RAL 9016
Dimensions	Body	mm	1,190 x 346 x 265	1,190 x 346 x 265
(W x H x D)	Shipping	mm	1,265 x 432 x 335	1,265 x 432 x 335
	Туре		Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	113 x 1	113 x 1
FdII	Air Flow Rate (H / M / L)	m³/min	23.0 / 20.0 / 17.0	26.0 / 23.0 / 19.0
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
D'	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	16.6	16.6
Sound Pressu	re Levels (H / M / L)	dB(A)	49 / 44 / 42	52 / 47 / 43
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C

Note:
1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU30GSVA4	ARNU36GSVA4
Drain Pump	-	
Cassette Cover	-	
Refrigerant Leakage Detector	PRLDN	VS0
EEV Kit	-	
Independent Power Module	PRIF	90
Robot Cleaner	-	
Pre Filter (Washable)	0	
Ion Generator	-	
CO2 Sensor	-	
Ventilation Kit	-	
IR Receiver	-	
Zone Controller	-	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), F PDRYCB400 (2 points input	
External Input (1 point)	0	
Wi-Fi	PWFMDI	D200 <sup>1)</sup>

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table 1) External installation only

INDOOR UNITS SPECIFICATIONS 132 I 133

<sup>\*:</sup> Nor C can be applied which is a second se



#### Features & Benefits

- New dual vane 4 way cassette allows comfortable air flow
- Full 3D Turbo fan decreases air resistance, providing high air flow and low sound levels.

#### **Key Applications**

- Retail • Hotel
- Dormitory School
- Office • Restaurant

	CASSETTE	4 WAY	2 WAY	1 WAY
Smart	Wi-Fi	0	0	0
Energy Efficiency	Human Detect Sensor	0	-	-
	Drain Pump	0	0	0
	Sleep Mode	0	0	0
Comfort	Timer (On / Off)	0	0	0
Comfort	Timer (Weekly)	0	0	0
	Two Thermistor Control	0	0	0
	Group Control	0	0	0

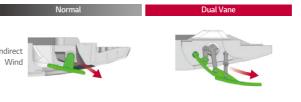
※ ○: Applied, - : Not applied

# 4 Way Air Flow with New Design

New Excellent Technology (NET) certifies new 4 way dual vane design that promotes comfortable and convenient airflow.









\*6 Airflows mode











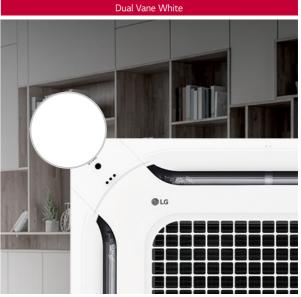
Indirect Wind

Indirect cooling & Heating Suitable for High Ceiling Provide high concentration

# **Brighter Color**

Color enhancement allows cassette to blend in to most interior ceiling spaces.

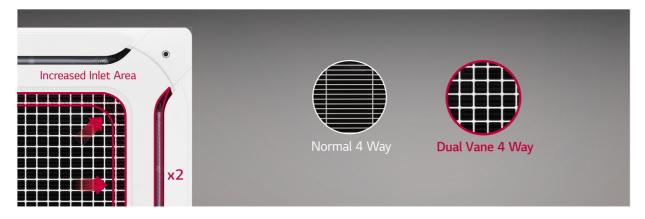




**SMART** 

# Wide Design

Bigger inlet and outlet make faster cooling / heating airflow.



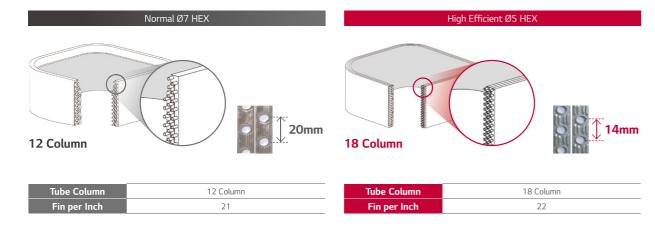
# Full 3D Turbo Fan

Full 3D Turbo fan decreases air resistance, so it creates high efficiency and reduces noise level.



# **High Efficiency Heat Exchanger (HEX)**

Ø5 High Density Heat Exchanger increases cooling / heating efficiency by 10%.



# **Ceiling to Floor Temperature Sensing**

With a special sensor that senses both ceiling and floor temperature, dual vane 4 way cassette provides comfort air.



# **Human-detection Air Flow**

Human detection provides users with direct or indirect air flow preferences.

#### Indirect comfort

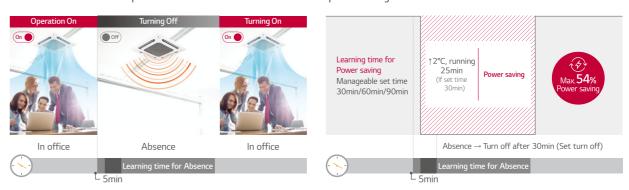
Provides air flow that blows away from user for comfort.

#### Direct cooling



# **Human Detection for Optimized Efficiency**

Indoor unit senses human presence to switch on or off for maximum power savings of 54%.



- Smart Dual Vane Indoor Unit '19 Line up.

Air cleaning function provides fresh, filtered air.



# **Convenient & Powerful 5-Step Air Purification**

Easy-to-manage Air Purification system with one-touch Air Purification filter.



6 months / Washable

# **Air Quality Level Display**

Wi-Fi functionality for anytime, anywhere indoor unit control and air quality level display.

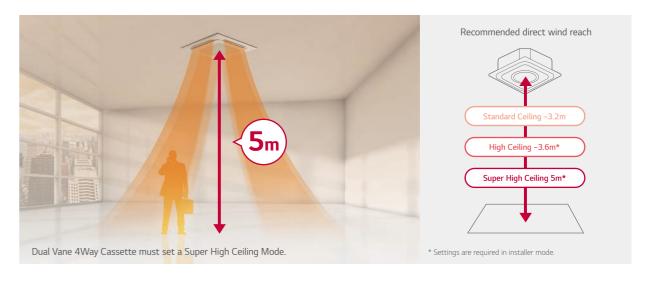


Anytime, anywhere access to check & control air status via mobile



# **Direct Wind**

Warm wind can reach up to 5m with plenty air volume. (@ 0.5ms)



# **LG ThinQ Connectivity**

Grille automatically detaches and re-attaches with 4 touch points for enhanced stability & convenient filter management.



- ① Monitoring Air status : Easy to check indoor air status
- Ultra Fine / Extra Fine / Fine Dust
- Day / Week /Month / Yearly

② Mobile Remote Control: Remote control by using mobile phone

- Control Mode / Temperature / Air flow etc.
- ③ Display Power Consumption : Check power consumption of A/C
- Check energy display
- Set target energy consumption level

INDOOR UNITS KEY FEATURES 138 I 139

6 months / Dry in sunlight

Air Purification kit

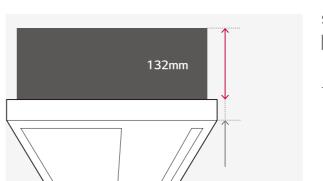
Deodorization

Dust electrification<sup>1</sup>

Air Purification panel

# Minimized Height (1 Way)

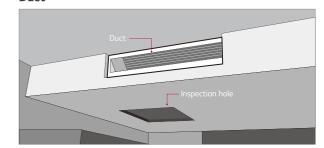
#### With a height of 132mm, the LG 1 Way cassette is the ideal solution for limited-space installations.



Size Compani	(Unit:mm)		
	A Company	B company	LG
1 Way Cassette	215	230	132

# Flexible Installation (1 Way)





# **Direct & Indirect Wind**

**Easy Filter Cleaning for Air Purification** 

Also, thanks to easy maintenance, users can use air purification conveniently without any worries about filter's cleanliness.

PM1.0 filter

Air Purification Kit filters do NOT need replacement and can be used semi-permanently.

Provides users with direct or indirect air flow preferences.

It increases the electrostatic force of particle to improve collection efficiency
 Wormally HEPA filter type must be replaced regularly. It means that it costs expensive for maintenance.

#### Comfort indirect wind

Without touching the skin directly, a large space is comfortable!





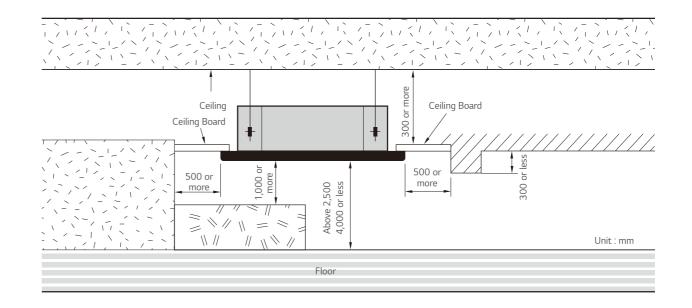
Cycle / Wash

6 months / Dry in sunlight

2 Weeks / Washable

1 Way cassette doesn't require the inspection access hole, so that simple installation is possible.

# **Installation Standard (1 Way)**



**DUAL VANE** 

#### ARNU24GTBB4 / ARNU28GTBB4 ARNU30GTBB4



	MODEL	UNIT	ARNU24GTBB4	ARNU28GTBB4	ARNU30GTBB4
Cooling Capaci	ty	kW	7.1	8.2	9.0
5 1 7		kW	8.0	9.2	10.0
Power Input (H / M / L)	Nominal	W	32 / 27 / 20	37 / 30 / 22	48 / 36 / 25
Dimensions	Body	mm	840 x 204 x 840	840 x 204 x 840	840 x 204 x 840
$(W \times H \times D)$	Shipping	mm	922 x 276 x 917	922 x 276 x 917	922 x 276 x 917
	Туре		Full 3D Turbo Fan	Full 3D Turbo Fan	Full 3D Turbo Fan
	Motor Output x Number	W	51 x 1	51 x 1	51 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	18 / 17 / 15	19 / 17 / 15	21 / 19 / 16
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	21	21	21
Sound Pressure	e Level (H / M / L)	dB(A)	36 / 34 / 31	39 / 35 / 34	40 / 36 / 33
Sound Power L	evel (H / M / L)	dB(A)	46 / 44 / 42	50 / 46 / 43	53 / 50 / 45
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communication	n Cable (VCTF-SB)	mm <sup>2</sup> x cores	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2
	Model Name		PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0
Decoration	Exterior Color		White	White	White
Panel	RAL Code		RAL 9003	RAL 9003	RAL 9003
(Accessory)	Net Dimensions (W x H x D)	mm	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU24GTBB4	ARNU28GTBB4	ARNU30GTBB4	
Drain Pump		0		
Cassette Cover		PTDCM		
Refrigerant Leakage Detector		PRLDNVS0		
EEV Kit				
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	0			
Ion Generator				
CO <sub>2</sub> Sensor	·			
Ventilation Kit		-		
IR Receiver		-		
Zone Controller		-		
Dry Contact (with additional accessory)		(1 point contact), PDRYCB320 (Ur 400 (2 points input), PDRYCB500		
External Input (1 Point)		0		
Wi-Fi		PWFMDD200		
Human detection sensor	PTVSAA0			
Floor Temperature Sensor		PT-AFGW0 :O		
Air cleaning kit		PT-AFGW0: PTAFMP0		
Elevation Grille		PT-AEGW0 :O		

#### ARNU36GTAB4 / ARNU42GTAB4 ARNU48GTAB4



	MODEL	UNIT	ARNU36GTAB4	ARNU42GTAB4	ARNU48GTAB4
Cooling Capaci	ty	kW	10.6	12.3	14.1
<b>Heating Capac</b>	ity	kW	11.9	13.8	15.9
Power Input (H / M / L)	Nominal	W	69 / 49 / 37	97 / 69 / 49	110 / 76 / 61
Dimensions	Body	mm	840 x 288 x 840	840 x 288 x 840	840 x 288 x 840
(W x H x D)	Shipping	mm	922 x 360 x 917	922 x 360 x 917	922 x 360 x 917
	Туре		Full 3D Turbo Fan	Full 3D Turbo Fan	Full 3D Turbo Fan
	Motor Output x Number	W	135 x 1	135 x 1	135 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	29 / 26 / 22	33 / 29 / 26	34 / 30 / 28
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	26	26	26
Sound Pressure	e Level (H / M / L)	dB(A)	42 / 39 / 36	44 / 41 / 39	46 / 43 / 41
Sound Power L	.evel (H / M / L)	dB(A)	54 / 51 / 47	56 / 53 / 49	58 / 54 / 53
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communication	n Cable (VCTF-SB)	mm² x cores	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2
	Model Name		PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0
Decoration Panel	Exterior Color		White	White	White
	RAL Code		RAL 9003	RAL 9003	RAL 9003
(Accessory)	Net Dimensions (W x H x D)	mm	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

au reale			
CHASSIS	ARNU36GTAB4	ARNU42GTAB4	ARNU48GTAB4
Drain Pump	0		
Cassette Cover	PTDCM		
Refrigerant Leakage Detector	PRLDNVS0		
EEV Kit	-		
Independent Power Module	PRIP0		
Robot Cleaner	-		
Pre Filter (Washable)	0		
Ion Generator	-		
CO <sub>2</sub> Sensor	-		
Ventilation Kit	-		
IR Receiver	-		
Zone Controller	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 Point)	0		
Wi-Fi	PWFMDD200		
Human detection sensor	PTVSAA0		
Floor Temperature Sensor	PT-AFGW0 :O		
Air cleaning kit	PT-AFGW0 : PTAFMP0		
Elevation Grille	PT-AEGW0 :O		

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**DUAL VANE** 

#### High sensible

#### ARNU07GTAA4 / ARNU09GTAA4 / ARNU12GTAA4 ARNU15GTAA4 / ARNU18GTAA4



	MODEL	UNIT	ARNU07GTAA4	ARNU09GTAA4	ARNU12GTAA4	ARNU15GTAA4	ARNU18GTAA4
Cooling Capacit	Ту	kW	2.2	2.8	3.6	4.5	5.6
Heating Capaci	ty	kW	2.5	3.2	4.0	5.0	6.3
Power Input (H / M / L)	Nominal	W	23 / 16 / 11	25 / 18 / 11	26 / 19 / 13	29 / 20 / 15	31 / 23 / 16
Dimensions	Body	mm	840 x 288 x 840				
(W x H x D)	Shipping	mm	922 x 360 x 917				
	Туре		Full 3D Turbo Fan				
	Motor Output x Number	W	166 x 1				
Fan	Running Current	Α	0.23	0.25	0.25	0.27	0.28
	Air Flow Rate (H / M / L)	m³/min	19 / 16 / 13	19 / 16 / 13	20 / 17 / 15	20 / 17 / 15	21 / 19 / 16
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe	Gas Side	mm (inch)	Ø15.88 (5/8)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)				
Weight	Body	kg	26	26	26	26	26
Sound Pressure	Level (H / M / L)	dB(A)	32 / 30 / 26	33 / 30 / 26	34 / 31 / 27	34 / 32 / 29	35 / 32 / 30
Sound Power Lo	evel (H / M / L)	dB(A)	41 / 38 / 34	42 / 39 / 34	42 / 40 / 36	43 / 40 / 37	44 / 41 / 38
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communication	Cable (VCTF-SB)	mm² x cores	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2	1.0~1.5 x 2	1.0 ~ 1.5 x 2
	Model Name		PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0
Decoration Panel	Exterior Color		White	White	White	White	White
	RAL Code		RAL 9003				
(Accessory)	Net Dimensions (W x H x D)	mm	950 x 35 x 950				
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

Note:
1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU07GTAA4 ARNU09GTAA4 ARNU12GTAA4 ARNU15GTAA4 ARNU18GTAA4			
Drain Pump	0			
Cassette Cover	PTDCM			
Refrigerant Leakage Detector	PRLDNVS0			
EEV Kit	-			
Independent Power Module	PRIPO			
Robot Cleaner				
Pre Filter (Washable)	0			
Ion Generator	-			
CO <sub>2</sub> Sensor	-			
Ventilation Kit	-			
IR Receiver	·			
Zone Controller	-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 Point)	0			
Wi-Fi	PWFMDD200			
Human detection sensor	PTVSAA0			
Floor Temperature Sensor	PT-AFGW0:O			
Air cleaning kit	PT-AFGW0 : PTAFMP0			
Elevation Grille	PT-AEGW0 :O			

#### High sensible

#### ARNU24GTAA4 / ARNU28GTAA4 / ARNU36GTAA4 ARNU42GTAA4 / ARNU48GTAA4



	MODEL	UNIT	ARNU24GTAA4	ARNU28GTAA4	ARNU36GTAA4	ARNU42GTAA4	ARNU48GTAA4
Cooling Capaci	ty	kW	7.1	8.2	10.6	12.3	14.1
Heating Capac	ity	kW	8.0	9.2	11.9	13.8	15.9
Power Input (H / M / L)	Nominal	W	35 / 29 / 20	40 / 31 / 25	65 / 43 / 31	86 / 65 / 43	100 / 67 / 53
Dimensions	Body	mm	840 x 288 x 840				
(W x H x D)	Shipping	mm	922 x 360 x 917				
	Туре		Full 3D Turbo Fan				
	Motor Output x Number	W	166 x 1				
Fan	Running Current	Α	0.38	0.46	0.60	0.80	0.88
	Air Flow Rate (H / M / L)	m³/min	23 / 21 / 19	24 / 22 / 20	28 / 24 / 21	31 / 28 / 24	33 / 28 / 26
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe	Gas Side	mm (inch)	Ø15.88 (5/8)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)				
Weight	Body	kg	26	26	26	26	26
Sound Pressure	e Level (H / M / L)	dB(A)	39 / 36 / 33	40 / 37 / 34	42 / 39 / 35	46 / 42 / 39	47 / 43 / 41
Sound Power L	.evel (H / M / L)	dB(A)	47 / 45 / 42	48 / 46 / 42	51 / 48 / 44	54 / 51 / 48	56 / 52 / 50
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communication	n Cable (VCTF-SB)	mm <sup>2</sup> x cores	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2	1.0 ~ 1.5 x 2	1.0~1.5 x 2	1.0 ~ 1.5 x 2
	Model Name		PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0	PT-AAGW0 PT-AFGW0
Decoration	Exterior Color		White	White	White	White	White
Panel	RAL Code		RAL 9003				
(Accessory)	Net Dimensions (W x H x D)	mm	950 x 35 x 950				
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (85°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU24GTAA4 ARNU28GTAA4 ARNU36GTAA4 ARNU42GTAA4 ARNU48GTAA4		
Drain Pump	0		
Cassette Cover	PTDCM		
Refrigerant Leakage Detector	PRLDNVS0		
EEV Kit	-		
Independent Power Module	PRIPO		
Robot Cleaner	-		
Pre Filter (Washable)	0		
Ion Generator			
CO <sub>2</sub> Sensor	·		
Ventilation Kit			
IR Receiver	·		
Zone Controller	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 Point)	0		
Wi-Fi	PWFMDD200		
Human detection sensor	PTVSAA0		
Floor Temperature Sensor	PT-AFGW0 : O		
Air cleaning kit	PT-AFGW0 : PTAFMP0		
Elevation Grille	PT-AEGW0: O		

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#### ARNU05GTRB4 / ARNU07GTRB4 ARNU09GTRB4 / ARNU12GTRB4



	MODEL	UNIT	ARNU05GTRB4	ARNU07GTRB4	ARNU09GTRB4	ARNU12GTRB4
Cooling Capa	city	kW	1.6	2.2	2.8	3.6
Heating Capa	city	kW	1.8	2.5	3.2	4.0
Power Input (H / M / L)	Nominal	W	13 / 12 / 11	13 / 12 / 11	14 / 13 / 12	17 / 15 / 13
Dimensions	Body	mm	570 x 214 x 570			
$(W \times H \times D)$	Shipping	mm	667 x 285 x 646			
	Туре		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
Fan	Motor Output x Number	W	43 x 1	43 x 1	43 x 1	43 x 1
ran	Air Flow Rate (H / M / L)	m³/min	7.5 / 7.0 / 6.6	7.5 / 7.0 / 6.6	8.0 / 7.5 / 7.1	8.7 / 8.0 / 7.0
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
ъ.	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	12.6	12.6	13.7	13.7
Sound Pressu	re Levels (H / M / L)	dB(A)	29 / 27 / 26	29 / 27 / 26	30 / 29 / 27	32 / 30 / 27
Sound Power	Levels (H / M / L)	dB(A)	45 / 43 / 42	45 / 43 / 42	46 / 43 / 42	48 / 46 / 43
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C			
	Model Name		PT-UQC PT-QCHW0 PT-QAGW0	PT-UQC PT-QCHW0 PT-QAGW0	PT-UQC PT-QCHW0 PT-QAGW0	PT-UQC PT-QCHW0 PT-QAGW0
Decoration Panel (Accessory)	Exterior Color		Morning Fog	Morning Fog	Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001	RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)	mm	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620
	Net Weight	kg	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0

- Note:

  1. Performance tested under EN14511

  2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU05GTRB4	ARNU07GTRB4	ARNU09GTRB4	ARNU12GTRB4	
Drain Pump	0				
Cassette Cover	PTDCQ				
Refrigerant Leakage Detector		PRLD	NVS0		
EEV Kit		PRGK024A	0 (~4.5kW)		
Independent Power Module		PR	PO		
Robot Cleaner	-				
Pre Filter (Washable)	0				
Ion Generator	·				
CO <sub>2</sub> Sensor	·				
Ventilation Kit	PTVK430				
IR Receiver	·				
Zone Controller					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 point)	0				
Wi-Fi		PWFM	DD200		

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

#### ARNU15GTQB4 / ARNU18GTQB4 ARNU21GTQB4



	MODEL	UNIT	ARNU15GTQB4	ARNU18GTQB4	ARNU21GTQB4
Cooling Capa	city	kW	4.5	5.6	6.0
Heating Capa	acity	kW	5.0	6.3	6.8
Power Input (H / M / L)	Nominal	W	24 / 21 / 18	25 / 22 / 19	28 / 23 / 20
Dimensions	Body	mm	570 x 256 x 570	570 x 256 x 570	570 x 256 x 570
$(W \times H \times D)$	Shipping	mm	667 x 327 x 646	667 x 327 x 646	667 x 327 x 646
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
F	Motor Output x Number	W	43 x 1	43 x 1	43 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0	12.0 / 11.1 / 9.4
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	15.0	15.0	15.0
Sound Pressu	ire Levels (H / M / L)	dB(A)	36 / 34 / 32	37 / 35 / 34	40 / 38 / 34
Sound Power	Levels (H / M / L)	dB(A)	50 / 48 / 46	51 / 50 / 46	53 / 51 / 46
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-UQC PT-QCHW0 PT-QAGW0	PT-UQC PT-QCHW0 PT-QAGW0	PT-UQC PT-QCHW0 PT-QAGW0
	Exterior Color		Morning Fog	Morning Fog	Morning Fog
Panel (Accessory)	RAL Code		RAL 9001	RAL 9001	RAL 9001
(Accessury)	Net Dimensions (W x H x D)	mm	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620
	Net Weight	kg	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0

- Note:
  1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27℃ (80.6℃) DB / 19℃ (66.2℃) WB, Outdoor temp. 35℃ (95℃) DB / 24℃ (75.2℃) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20℃ (68℃) DB / 15℃ (59℃) WB, Outdoor temp. 7℃ (44.6℃) DB / 6℃ (42.8℃) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU15GTQB4	ARNU18GTQB4	ARNU21GTQB4	
Drain Pump	0			
Cassette Cover		PTDCQ		
Refrigerant Leakage Detector		PRLDNVS0		
EEV Kit		PRGK024A0 (~4.5kW)		
Independent Power Module		PRIP0		
Robot Cleaner	-			
Pre Filter (Washable)	0			
Ion Generator	-			
CO <sub>2</sub> Sensor		-		
Ventilation Kit		PTVK430		
IR Receiver		-		
Zone Controller		-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi		PWFMDD200		

※ O : Applied, - : Not applied Option : Refer to model name in table

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	MODEL	UNIT	ARNU09GTSC4	ARNU12GTSC4
Cooling Capa	city	kW	2.8	3.6
Heating Capacity		kW	3.2	4.0
Power Input (H / M / L)	Nominal	W	16 / 14 / 11	18 / 14 / 11
Dimensions	Body	mm	830 x 225 x 600	830 x 225 x 600
(W x H x D)	Shipping	mm	1,055 × 290 × 682	1,055 × 290 × 682
	Туре		Turbo Fan	Turbo Fan
Fan	Motor Output x Number	W x No.	37 x 1	37 x 1
I dii	Air Flow Rate (H / M / L)	m³/min	10.8 / 9.8 / 9.1	11.1 / 10.3 / 9.1
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
Dis.	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	18.1	18.1
Sound Pressu	re Levels (H / M / L)	dB(A)	33 / 31 / 29	34 / 32 / 29
Sound Power	Levels (H / M / L)	dB(A)	42 / 40 / 38	43 / 41 / 39
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communication	on Cable	mm <sup>2</sup>	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
	Model Name		PT-USC	PT-USC
Decoration	Exterior Color		Morning Fog	Morning Fog
Panel	RAL Code		RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)	mm	1,100 x 28 x 690	1,100 x 28 x 690
	Net Weight	kg	4.7	4.7

Note:

1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU09GTSC4	ARNU12GTSC4	
Drain Pump	0		
Cassette Cover		-	
Refrigerant Leakage Detector	PRLD	NVS0	
EEV Kit	PRGK024A	0 (~5.6kW)	
Independent Power Module	PR	IPO	
Robot Cleaner	-		
Pre Filter (Washable)	0		
Ion Generator	·		
CO2 Sensor			
Ventilation Kit			
IR Receiver			
Zone Controller		-	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi	PWFM	DD200	

※ ○ : Applied, - : Not applied Option : Refer to model name in table



	MODEL	UNIT	ARNU18GTSC4	ARNU24GTSC4
Cooling Capa		kW	5.6	7.1
Heating Capacity		kW	6.3	8.0
Power Input (H / M / L)	Nominal	W	19 / 16 / 14	31 / 22 / 14
Dimensions	Body	mm	830 x 225 x 600	830 x 225 x 600
(W x H x D)	Shipping	mm	1,055 × 290 × 682	1,055 × 290 × 682
	Туре		Turbo Fan	Turbo Fan
Fan	Motor Output x Number	W x No.	37 x 1	37 x 1
Fall	Air Flow Rate (H / M / L)	m³/min	11.8 / 10.8 / 9.8	14.5 / 12.4 / 10.3
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	18.1	18.1
Sound Pressu	re Levels (H / M / L)	dB(A)	35 / 33 / 31	40 / 37 / 33
Sound Power	Levels (H / M / L)	dB(A)	44 / 42 / 40	48 / 45 / 40
Power Supply	•	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communication	on Cable	mm <sup>2</sup>	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
	Model Name		PT-USC	PT-USC
Decoration Panel	Exterior Color		Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)	mm	1,100 x 28 x 690	1,100 x 28 x 690
	Net Weight	kg	4.7	4.7

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

Chassis	ARNU18GTSC4	ARNU24GTSC4		
Drain Pump				
Cassette Cover		-		
Refrigerant Leakage Detector	PRLD	NVS0		
EEV Kit	PRGK024A	0 (~5.6kW)		
Independent Power Module	PRIPO			
Robot Cleaner				
Pre Filter (Washable)	0			
Ion Generator	-			
CO2 Sensor		-		
Ventilation Kit		-		
IR Receiver		-		
Zone Controller		-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)				
Wi-Fi	PWFM	DD200		

※ O : Applied, - : Not applied Option : Refer to model name in table

INDOOR UNITS SPECIFICATIONS 148 I 149

# ARNU12GTUB4

ARNU07GTUB4 / ARNU09GTUB4



	MODEL	UNIT	ARNU07GTUB4	ARNU09GTUB4	ARNU12GTUB4
Cooling Capa	city	kW	2.2	2.8	3.6
Heating Capacity		kW	2.5	3.2	4.0
Power Input (H / M / L)	Nominal	W	20 / 18 / 16	22 / 20 / 18	24 / 22 / 20
Dimensions	Body	mm	860 x 132 x 450	860 x 132 x 450	860 x 132 x 450
$(W \times H \times D)$	Shipping	mm	1,129 x 259 x 538	1,129 x 259 x 538	1,129 x 259 x 538
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	30 x 1	30 x 1	30 x 1
I dii	Air Flow Rate (H / M / L)	m³/min	8.2 / 7.3 / 6.4	9.2 / 8.6 / 8.2	10.0 / 9.2 / 8.2
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
Disc.	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	12.2	12.2	12.2
Sound Pressu	Sound Pressure Levels (H / M / L) dB(A)		32 / 29 / 25	35 / 34 / 32	38 / 35 / 32
Sound Power	Levels (H / M / L)	dB(A)	47 / 44 / 41	50 / 48 / 47	52 / 50 / 47
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-UAHGO, PT-UAHWO, PT-UPHGO	PT-UAHGO, PT-UAHWO, PT-UPHGO	PT-UAHG0, PT-UAHW0, PT-UPHG0
Decoration	Exterior Color		Noble White	Noble White	Noble White
Panel	RAL Code		RAL 9003	RAL 9003	RAL 9003
(Accessory)	Net Dimensions (W x H x D)	mm	1,420 x 34 x 500	1,420 x 34 x 500	1,420 x 34 x 500
	Net Weight	kg	5.5 / 6.5	5.5 / 6.5	5.5 / 6.5

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU07GTUB4	ARNU09GTUB4	ARNU12GTUB4		
Drain Pump		0			
Cassette Cover		-			
Refrigerant Leakage Detector		PRLDNVS0			
EEV Kit		PRGK024A0			
Independent Power Module		PRIP0			
Robot Cleaner	-				
Pre Filter (Washable)	0				
Ion Generator					
CO2 Sensor		-			
Ventilation Kit		-			
IR Receiver		-			
Zone Controller		-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 point)	0				
Air Cleaning Kit	PTAHTP0				
Wi-Fi		PWFMDD200			

※ ○ : Applied, - : Not applied Option : Refer to model name in table



	MODEL UNIT		ARNU18GTTB4	ARNU24GTTB4
Cooling Capacity		kW	5.6	7.1
Heating Capacity		kW	6.3	7.1
Power Input (H / M / L)	Nominal	W	38 / 28 / 24	51 / 33 / 26
Dimensions	Body	mm	1,180 x 132 x 450	1,180 x 132 x 450
(W x H x D)	Shipping	mm	1,499 x 259 x 538	1,499 x 259 x 538
	Туре		Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	30 x 1	30 x 1
I dii	Air Flow Rate (H / M / L)	m³/min	13.3 / 12.1 / 10.9	14.6 / 13.3 / 11.5
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
D'	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Weight Body kg		15.6	15.6
Sound Pressu	re Levels (H / M / L)	dB(A)	40 / 37 / 35	43 / 40 / 36
Sound Power	Levels (H / M / L)	dB(A)	56 / 51 / 48	59 / 53 / 50
Power Supply	•	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-TAHGO, PT-TAHWO, PT-TPHGO	PT-TAHGO, PT-TAHWO, PT-TPHGO
	Exterior Color		Noble White	Noble White
Decoration Panel	RAL Code		RAL 9003	RAL 9003
(Accessory)	Net Dimensions (W x H x D)	mm	1,100 x 34 x 500	1,100 x 34 x 500
	Net Weight	kg	4.6 / 5.3	4.6 / 5.3

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU18GTTB4	ARNU24GTTB4	
Drain Pump	0		
Cassette Cover	-		
Refrigerant Leakage Detector	PRLDNVS0		
EEV Kit	-		
Independent Power Module	PRIP0		
Robot Cleaner	-		
Pre Filter (Washable)	0		
Ion Generator	-		
CO2 Sensor	-		
Ventilation Kit	-		
IR Receiver	-		
Zone Controller	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYC PDRYCB400 (2 points input), PD		
External Input (1 point)	O		
Air Cleaning Kit	PTAHTPO		
Wi-Fi	PWFMDD200	)	

O : Applied, - : Not applied
 Option : Refer to model name in table



#### Features & Benefits

 Luxury round design can make a luxurious space with a round design considering side view.

 $\bullet$  Perfect round air flow without blind spots.

#### **Key Applications**

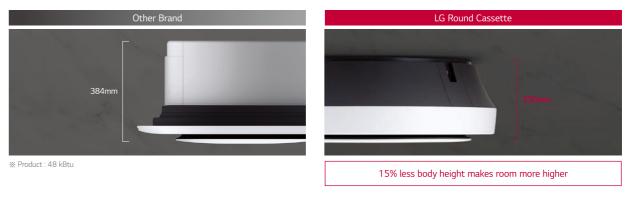
RetailRestaurantOfficeHotel

	CASSETTE	ROUND
Smart	Wi-Fi	0
Energy Efficiency	Human Detect Sensor	-
	Drain Pump	0
	Sleep Mode	0
Comfort	Timer (On / Off)	0
Comfort	Timer (Weekly)	0
	Two Thermistor Control	0
	Group Control	0

※ ○: Applied, - : Not applied

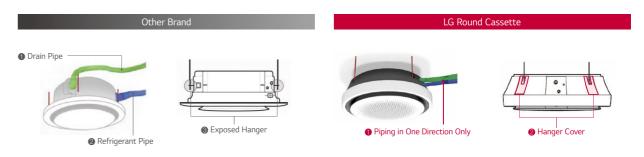
# **Slim and Compact Design**

Reduce the height of the body by 15%, save space and maximize the openness of the interior space.



# Minimal Exposure Design

Pipes are brought together in one place to minimize exposure. Hanger covers hide installations to add a clean look.



# **Perfect Round Air Flow**

Perfect round flow without blind spots.



3 Way airflow with blind spot.

Perfect circular airflow without blind spots.

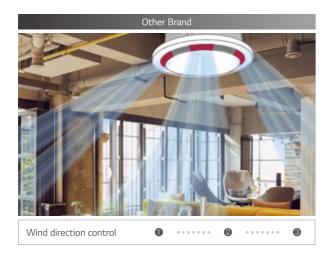
INDOOR UNITS KEY FEATURES

**ROUND CEILING** 

CASSETTE

# **Visible Air Flow**

With crystal vein for 6-step precision control, you can send cool / heated air wherever you want.

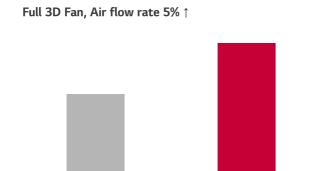




# **Powerful and Quiet Air Flow**

3D fan increases airflow by 5% and noise reduction technology makes a quieter, more comfortable space.

New (Round)



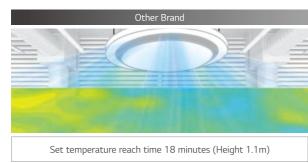




# 30% Faster in Cooling

Previous (4 Way)

Larger airflow rate, cooling rate is faster than 30%.





\*\* Based on test results from LG chamber; this image is designed to help customers understand. Experimental environment height 3.2m, 48 kBtu, cooling mode, high flow rate, horizontal air flow direction

#### ARNU24GTYA4 / ARNU36GTYA4 / ARNU48GTYA4



MODEL		UNIT	ARNU24GTYA4	ARNU36GTYA4	ARNU48GTYA4
Cooling Capacity k		kW	7.1	10.6	14.1
Heating Capacity		kW	8.0	11.9	15.9
Power Input (H / M / L)	Nominal	W	44 / 36 / 29	63 / 47 / 36	98 / 70 / 44
Dimensions	Body	mm	1,050 x 330 x 1,050	1,050 x 330 x 1,050	1,050 x 330 x 1,050
(W x H x D)	Shipping	mm	1,137 x 395 x 1,132	1,137 x 395 x 1,132	1,137 x 395 x 1,132
	Туре		3D Turbo Fan	3D Turbo Fan	3D Turbo Fan
Fan	Motor Output x Number	W	157 x 1	157 x 1	157 x 1
FdII	Air Flow Rate (H / M / L)	m3/min	22 / 21 / 19	27 / 24 / 21	32 / 28 / 23
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Long life	Long life	Long life
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Drain Pipe(Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Weight Body kg		30	30	30
Sound Pressu	re Level (H / M / L)	dB(A)	39 / 37 / 34	43 / 39 / 37	47 / 44 / 39
Sound Power	Sound Power Level (H / M / L) dB(A)		48 / 46 / 43	52 / 48 / 46	56 / 53 / 48
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable (VCTF-SB)	mm² x cores	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- Note:

  1. Performance tested under EN14511

  2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU24GTYA4	ARNU36GTYA4	ARNU48GTYA4			
Drain Pump		0				
Cassette Cover		-				
Refrigerant Leakage Detector		PRLDNVS0				
EEV Kit		-				
Independent Power Module		PRIP0				
Robot Cleaner		-				
Pre Filter (Washable)		0				
Ion Generator	-					
CO2 Sensor	·					
Ventilation Kit						
IR Receiver		-				
Zone Controller		-				
Dry Contact (with additional accessory)		(1 point contact), PDRYCB320 (Un 400 (2 points input), PDRYCB500 (				
External Input (1 Point)		0				
Wi-Fi		PWFMDD200				
Human detection sensor	-					
Floor Temperature Sensor	· ·					
Air cleaning kit		-				
Elevation Grille		-				

<sup>※</sup> O : Applied, - : Not applied Option : Refer to model name in table

INDOOR UNITS KEY FEATURES INDOOR UNITS SPECIFICATIONS 154 I 155



#### Features & Benefits

- Easy and flexible duct adjusts air volume with External Static Pressure (ESP) control function.
- Minimalist visibility (Hidden within ceiling) to blend seamlessly into any interior

#### **Key Applications**

- Office Retail
- Hotel
   Residential building

	DUCT	HIGH	MIDDLE	LOW
Smart	Wi-Fi	0	0	0
Energy Efficiency	E.S.P Control	0	0	0
	Drain Pump	0	0	0
	Timer (On / Off)	0	0	0
Comfort	Timer (Weekly)	0	0	0
	Two Thermistor Control	0	0	0
	Group Control	0	0	0

※ ○: Applied, - : Not applied

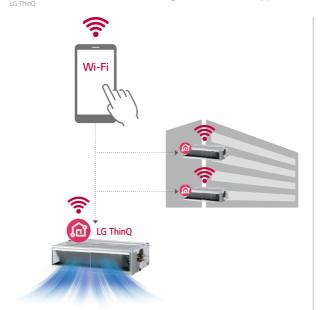
# Wi-Fi Control

Anytime, anywhere access to the unit with Android & iOS-based smartphones.

# េំ

#### LG ThinQ

Search "LG ThinQ" on Google market or the App Store to download the app.



#### Easy Registration and Log-in

Follow the easy set-up steps that will activate LG ThinQ's user-friendly



#### Simple operation for various functions



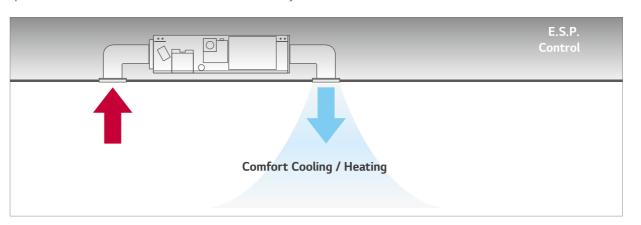


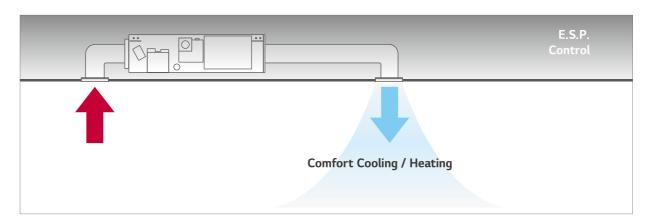
On/Off, Current Temp Mode, Set Temp

Vane Control

# External Static Pressure (ESP) Control

User has easy access to air volume selection via remote controller using the ESP control function. The BLDC motor can control fan speed and air volume. No additional accessories are necessary to control air flow.





INDOOR UNITS KEY FEATURES

COMFORT

# **Static Pressure 11- Step Control**

Depending on the installation environment, LG's ceiling concealed duct controls the static pressure with 11steps to provide maximized comfort to any environment.

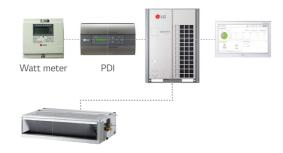




# **Energy Monitoring**

Accumulated electric energy of the indoor unit can be identified with wired remote control, as well as with the central controller. This function is an advantage for energy management.

#### Install Scene







Total accumulated electric energy 595kWh





Standard wired remote controller

Total accumulated electric energy 3,977kWh

#### Apply for multistory building

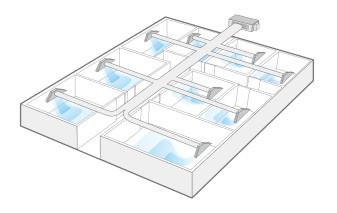




<sup>※</sup> Outdoor unit's accumulated electric energy / using rate of individual indoor unit + indoor unit's accumulated electric energy is displayed in wired remote controller, only when central controller, digital integrating electricity meter and PDI are installed and PDI, outdoor unit and indoor unit are connected with power wire. Only total accumulated electric energy is displayed in standard wired remote controller. In premium wired remote controller, that are displayed into week / month / year.

# **Multiple Room Operation**

Using a spiral duct (Embedded or flexible type) and stream chamber, it is possible to operate cooling / heating for several rooms simultaneously.



# Filter Alert

The alarm is activated when the filter needs to be cleaned, and the time remaining for cleaning is displayed on the screen.

#### Remain Time Until Indoor Filter Cleaning + Alarm





Remain time until indoor filter cleaning 2,400hr.

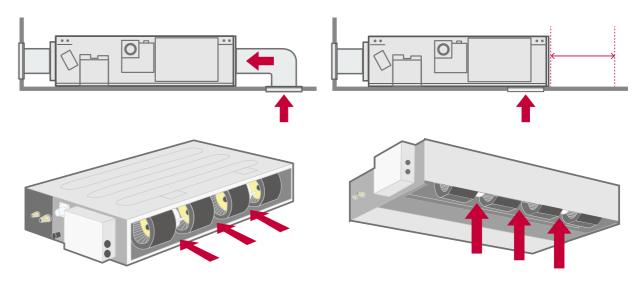
Remain time until indoor filter cleaning 1,729hr.

# Flexible Installation

(Low Static Duct and Low Duct Slim Only)

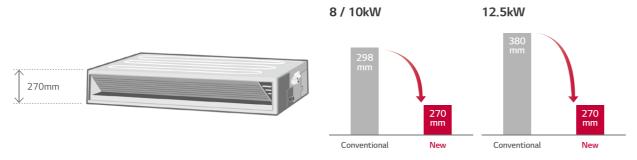
The alarm is activated when the filter needs to be cleaned, and the time remaining for cleaning is displayed on the screen.

#### Air intake at the rear or bottom



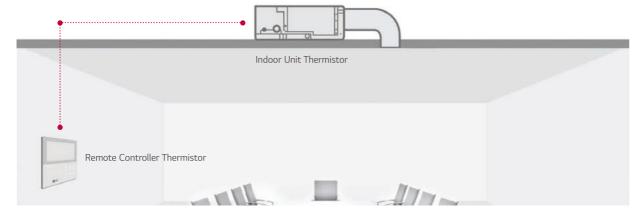
INDOOR UNITS KEY FEATURES 159

New mid-static ducts provide ideal solution for installation in limited space.



# **Two Thermistors Control**

The indoor temperature can be checked using the thermi-stors in the remote controller as well as from the indoor unit. There may be a significant difference between ceiling and floor air temperature. Two thermistors can optimise indoor air temperature for a more comfortable environment.

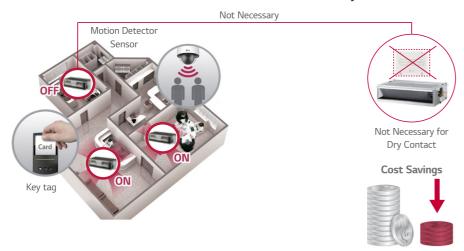


# 1 Point External Input

(On / Off Control)

Indoor unit can be controlled by external devices without dry contact, so customer can save cost of installation.

#### Connection between an indoor unit and external devices directly



case of needing more functions beside on / off control, a dry contact is required to be installed.



	MODEL	UNIT	ARNU07GM1A4	ARNU09GM1A4	ARNU12GM1A4	ARNU15GM1A4	ARNU18GM1A4	ARNU24GM1A4
Cooling Capa	city	kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating Capa	city	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power Input (H / M / L)	Nominal	W	39 / 30 / 25	40 / 32 / 26	46 / 38 / 31	67 / 53 / 46	85 / 63 / 55	91 / 74 / 58
Dimensions	Body	mm	900 x 270 x 700	900 x 270 x 700				
(W x H x D)	Shipping	mm	1,100 x 338 x 773	1,100 x 338 x 773				
	Туре		Sirocco Fan	Sirocco Fan				
	Motor Output x Number	W x No.	136 x 1	136 x 1				
	Air Flow Rate (H / M / L)	m³/min	9.0 / 7.5 / 6.0	9.5 / 7.5 / 6.0	11.0 / 9.0 / 7.0	16.0 / 12.0 / 9.0	17.0 / 14.5 / 12.0	19.0 / 16.0 / 14.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	9.0 / 7.5 / 6.0	9.5 / 7.5 / 6.0	11.0 / 9.0 / 7.0	16.0 / 12.0 / 9.0	17.0 / 14.5 / 12.0	19.0 / 16.0 / 14.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	2.5 (25)	2.5 (25)	2.5 (25)	2.5 (25)	2.5 (25)	2.5 (25)
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter				
-	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	25 (1)	25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	25.5	25.5	25.5	25.5	25.5	26.5
Sound Pressu	re Levels (H / M / L)	dB(A)	26 / 24 / 23	27 / 25 / 23	27 / 25 / 23	30 / 27 / 23	31 / 28 / 25	32 / 29 / 26
Sound Power	Levels (H / M / L)	dB(A)	55 / 54 / 51	55 / 54 / 52	56 / 54 / 52	59 / 57 / 55	59 / 57 / 55	59 / 58 / 56
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0~1.5 x 2C				

- Note:
  1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU07GM1A4 ARNU09GM1A4 ARNU12GM1A4 ARNU15GM1A4 ARNU18GM1A4 ARNU24GM1A4
Drain Pump	0
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVS0
EEV Kit	PRGK024A0 (~5.6kW)
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	0
Ion Generator	-
CO <sub>2</sub> Sensor	-
Ventilation Kit	-
IR Receiver	PWLRVN000
Zone Controller	ABZCA
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)
External Input (1 point)	0
Wi-Fi	PWFMDD200

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

#### ARNU28GM2A4 / ARNU36GM2A4 ARNU42GM2A4 / ARNU48GM3A4 ARNU54GM3A4



	MODEL	UNIT	ARNU28GM2A4	ARNU36GM2A4	ARNU42GM2A4	ARNU48GM3A4	ARNU54GM3A4
Cooling Capa	city	kW	8.2	10.6	12.3	14.1	15.8
Heating Capa	city	kW	9.2	11.9	13.8	15.9	18.0
Power Input (H / M / L)	Nominal	W	123 / 81 / 57	184 / 123 / 81	231 / 162 / 111	172 / 105 / 65	260 / 215 / 172
Dimensions	Body	mm	1,250 x 270 x 700	1,250 x 270 x 700	1,250 x 270 x 700	1,250 x 360 x 700	1,250 x 360 x 700
(W x H x D)	Shipping	mm	1,450 x 338 x 773	1,450 x 338 x 773	1,450 x 338 x 773	1,450 x 428 x 773	1,450 x 428 x 773
	Туре		Sirocco Fan				
	Motor Output x Number	W x No.	350 x 1				
	Air Flow Rate (H / M / L)	m³/min	28.0 / 24.0 / 21.0	32.0 / 28.0 / 24.0	38.0 / 33.0 / 28.0	40.0 / 34.0 / 28.0	50.0 / 45.0 / 40.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	28.0 / 24.0 / 21.0	32.0 / 28.0 / 24.0	38.0 / 33.0 / 28.0	40.0 / 34.0 / 28.0	50.0 / 45.0 / 40.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	5 (49)	5 (49)	5 (49)	5 (49)	5 (49)
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
-	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)				
Weight	Body	kg	38.0	38.0	39.5	44.0	44.0
Sound Pressu	re Levels (H / M / L)	dB(A)	36 / 34 / 33	37 / 36 / 34	38 / 37 / 36	39 / 37 / 35	42 / 40 / 39
Sound Power	Levels (H / M / L)	dB(A)	59 / 57 / 55	60 / 59 / 57	62 / 61 / 60	63 / 60 / 59	65 / 64 / 62
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C				

- Note:
  1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°T) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU28GM2A4 ARNU36GM2A4 ARNU42GM2A4 ARNU48GM3A4 ARNU54GM3A4				
Drain Pump	0				
Cassette Cover	-				
Refrigerant Leakage Detector	PRLDNVS0				
EEV Kit	-				
Independent Power Module	PRIPO				
Robot Cleaner					
Pre Filter (Washable)	0				
Ion Generator					
CO <sub>2</sub> Sensor	-				
Ventilation Kit	-				
IR Receiver	PWLRVN000				
Zone Controller	ABZCA				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 point)	0				
Wi-Fi	PWFMDD200				

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

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#### ARNU05GL4G4 / ARNU07GL4G4 ARNU09GL4G4 / ARNU12GL5G4



	MODEL	UNIT	ARNU76GB8A4	ARNU96GB8A4
Cooling Capa	city	kW	22.4	28.0
Heating Capa	city	kW	25.2	31.5
Power Input (H / M / L)	Nominal	W	765 / 500 / 500	800 / 750 / 750
Dimensions	Body	mm	1,562 x 460 x 688	1,562 x 460 x 688
$(W \times H \times D)$	Shipping	mm	1,806 x 537 x 825	1,806 x 537 x 825
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	375 x 2	375 x 2
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	60.0 / 50.0 / 50.0	72.0 / 64.0 / 64.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	22 (216)	22 (216)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	64.0 / 50.0 / 50.0	76.0 / 64.0 / 64.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	15 (147)	15 (147)
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	87.0	87.0
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

HIGH STATIC

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F.) DB / 19°C (66.2°F.) WB, Outdoor temp. 35°C (95°F.) DB / 24°C (75.2°F.) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F.) DB / 15°C (59°F.) WB, Outdoor temp. 7°C (44.6°F.) DB / 6°C (42.8°F.) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU76GB8A4 ARNU96GB8A4		
Drain Pump	0		
Cassette Cover	-		
Refrigerant Leakage Detector	PRLDNVS0		
EEV Kit	0		
Independent Power Module	PRIPO		
Robot Cleaner	-		
Pre Filter (Washable)	0		
Ion Generator	-		
CO <sub>2</sub> Sensor	-		
Ventilation Kit	-		
IR Receiver	PWLRVN000		
Zone Controller	ABZCA		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi	PWFMDD200		

※ ○ : Applied, - : Not applied Option : Refer to model name in table



	MODEL	UNIT	ARNU05GL4G4	ARNU07GL4G4	ARNU09GL4G4	ARNU12GL5G4
Cooling Capa	city	kW	1.8	2.2	2.8	3.6
Heating Capa	city	kW	2.2	2.5	3.2	4
Power Input (H / M / L)	Nominal	W	15 / 13 / 11	28 / 24 / 21	28 / 24 / 21	43 / 38 / 35
Dimensions	Body	mm	700 x 190 x 460	700 x 190 x 460	700 x 190 x 460	900 x 190 x 460
(W x H x D)	Shipping	mm	925 x 255 x 561	925 x 255 x 561	925 x 255 x 561	1,125 x 255 x 561
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 1	19 x 1	19 x 1	19 x 1+5x 1
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	7.0 / 6.5 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5	10.0 / 8.5 / 7.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	1 (10)	1 (10)	1 (10)	1 (10)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	7.0 / 6.5 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5	10.0 / 8.5 / 7.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	0(0)	0(0)	0(0)	0(0)
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	6.35(1/4)	6.35(1/4)	6.35(1/4)	6.35(1/4)
Pipe Connections	Gas Side	mm (inch)	12.7(1/2)	12.7(1/2)	12.7(1/2)	12.7(1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25.4(1)	Ø25.4(1)	Ø25.4(1)	Ø25.4(1)
Weight	Body	kg	14.6(32.2)	14.6(32.2)	14.6(32.2)	20(44.1)
Sound Pressu	re Levels (H / M / L)	dB(A)	25 / 24 / 22	26 / 24 / 22	28 / 25 / 22	29 / 27 / 25
Sound Power	Levels (H / M / L)	dB(A)	37 / 36 / 34	38 / 37 / 33	40 / 37 / 34	41 / 38 / 38
Power Supply	,	Ø, V, Hz	220 - 230 - 240, 1,50/60			
Transmission	Cable	mm <sup>2</sup>	1.0~1.5 x 2C	1.0~1.5 x 2C	1.0~1.5 x 2C	1.0~1.5 x 2C

Note:

1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F.) DB / 19°C (66.2°F.) WB, Outdoor temp. 35°C (95°F.) DB / 24°C (75.2°F.) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F.) DB / 15°C (59°F.) WB, Outdoor temp. 7°C (44.6°F.) DB / 6°C (42.8°F.) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU05GL4G4	ARNU07GL4G4	ARNU09GL4G4	ARNU12GL5G4
Drain Pump	0			
Cassette Cover				
Refrigerant Leakage Detector		PRLDN	VS0	
EEV Kit		PRGK0	24A0	
Independent Power Module		PRIF	0	
Robot Cleaner	-			
Pre Filter (Washable)	0			
Ion Generator	-			
CO <sub>2</sub> Sensor				
Ventilation Kit	-			
IR Receiver		PWLRV	V000	
Zone Controller	ABZCA			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi		PWFMD	D200	

※ ○ : Applied, - : Not applied Option : Refer to model name in table

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#### ARNU15GL5G4 / ARNU18GL5G4 ARNU21GL6G4 / ARNU24GL6G4



	MODEL	UNIT	ARNU15GL5G4	ARNU18GL5G4	ARNU21GL6G4	ARNU24GL6G4
Cooling Capa	city	kW	4.5	5.6	6.3	7.1
Heating Capa	city	kW	5	6.3	7.1	8
Power Input (H / M / L)	Nominal	W	54 / 45 / 38	57 / 39 / 30	65 / 50 / 42	81 / 59 / 43
Dimensions	Body	mm	900 x 190 x 460	900 x 190 x 460	1,100 x 190 x 460	1,100 x 190 x 460
(W x H x D)	Shipping	mm	1,125 x 255 x 561	1,125 x 255 x 561	1,325 x 255 x 561	1,325 x 255 x 561
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 1+5x 1	19 x 1+5x 1	19 x 2	19 x 2
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	1 (10)	1 (10)	1 (10)	1 (10)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	0(0)	0(0)	0(0)	0(0)
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	6.35(1/4)	6.35(1/4)	9.52(3/8)	9.52(3/8)
Pipe Connections	Gas Side	mm (inch)	12.7(1/2)	12.7(1/2)	15.88(5/8)	15.88(5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25.4(1)	Ø25.4(1)	Ø25.4(1)	Ø25.4(1)
Weight	Body	kg	20(44.1)	20(44.1)	22(48.5)	22(48.5)
Sound Pressu	re Levels (H / M / L)	dB(A)	32 / 29 / 27	35 / 32 / 29	35 / 30 / 29	36 / 33 / 29
Sound Power	Levels (H / M / L)	dB(A)	45 / 42 / 40	47 / 45 / 42	53 / 48 / 46	57 / 50 / 47
Power Supply	,	Ø, V, Hz	220 - 230 - 240, 1,50/60			
Transmission	Cable	mm <sup>2</sup>	1.0~1.5 x 2C	1.0~1.5 x 2C	1.0~1.5 x 2C	1.0~1.5 x 2C

#### Accessories

CHASSIS	ARNU15GL5G4 ARNU18GL5G4 ARNU21GL6G4 ARNU24GL6G4		
Drain Pump	0		
Cassette Cover	-		
Refrigerant Leakage Detector	PRLDNVS0		
EEV Kit	PRGK024A0		
Independent Power Module	PRIPO		
Robot Cleaner	·		
Pre Filter (Washable)	0		
Ion Generator			
CO <sub>2</sub> Sensor	-		
Ventilation Kit	-		
IR Receiver	PWLRVN000		
Zone Controller	ABZCA		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi	PWFMDD200		

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table



	MODEL	UNIT	ARNU05GL1G4	ARNU07GL1G4	ARNU09GL1G4
Cooling Capa	city	kW	1.7	2.2	2.8
Heating Capa	city	kW	1.9	2.5	3.2
Power Input (H / M / L)	Nominal	W	29 / 26 / 24	31 / 28 / 24	39 / 29 / 24
Dimensions	Body	mm	700 x 190 x 700	700 x 190 x 700	700 x 190 x 700
(W x H x D)	Shipping	mm	862 x 255 x 781	862 x 255 x 781	862 x 255 x 781
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 1	19 x 1	19 x 1
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	6.7 / 6.2 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5
Fan	External Static Pressure (High Mode)	mmAq (Pa)	2.54 (25)	2.54 (25)	2.54 (25)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	6.7 / 6.2 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5
	External Static Pressure (Standard Mode)	mmAq (Pa)	0 (0)	0 (0)	0 (0)
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	17.5	17.5	17.5
Sound Pressu	re Levels (H / M / L)	dB(A)	25 / 24 / 22	26 / 24 / 22	28 / 25 / 22
Sound Power	Levels (H / M / L)	dB(A)	48 / 46 / 45	50 / 47 / 45	53 / 49 / 45
Power Supply	,	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU05GL1G4	ARNU07GL1G4	ARNU09GL1G4
Drain Pump	0		
Cassette Cover		-	
Refrigerant Leakage Detector		PRLDNVS0	
EEV Kit		PRGK024A0	
Independent Power Module		PRIP0	
Robot Cleaner	-		
Pre Filter (Washable)	0		
Ion Generator			
CO <sub>2</sub> Sensor			
Ventilation Kit	-		
IR Receiver		PWLRVN000	
Zone Controller		ABZCA	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi		PWFMDD200	

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Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (88°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

ARNU05GL1G4 / ARNU07GL1G4 ARNU09GL1G4

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

#### ARNU21GL3G4 / ARNU24GL3G4



	MODEL	UNIT	ARNU12GL2G4	ARNU15GL2G4	ARNU18GL2G4
Cooling Capa	city	kW	3.6	4.5	5.6
Heating Capa	city	kW	4.0	5.0	6.3
Power Input (H / M / L)	Nominal	W	41 / 34 / 29	56 / 41 / 34	71 / 56 / 41
Dimensions	Body	mm	900 x 190 x 700	900 x 190 x 700	900 x 190 x 700
(W x H x D)	Shipping	mm	1,062 x 255 x 781	1,062 x 255 x 781	1,062 x 255 x 781
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 1, 5 x 1	19 x 1, 5 x 1	19 x 1, 5 x 1
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	10.0 / 8.5 / 7.0	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	2.54 (25)	2.54 (25)	2.54 (25)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	10.0 / 8.5 / 7.0	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	0 (0)	0 (0)	0 (0)
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	23.0	23.0	23.0
Sound Pressu	re Levels (H / M / L)	dB(A)	30 / 27 / 25	33 / 30 / 28	35 / 32 / 29
Sound Power	Levels (H / M / L)	dB(A)	50 / 47 / 46	54 / 51 / 47	56 / 54 / 51
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU12GL2G4	ARNU15GL2G4	ARNU18GL2G4
Drain Pump	0		
Cassette Cover		-	
Refrigerant Leakage Detector		PRLDNVS0	
EEV Kit		-	
Independent Power Module		PRIP0	
Robot Cleaner			
Pre Filter (Washable)	0		
Ion Generator	·		
CO <sub>2</sub> Sensor		-	
Ventilation Kit		-	
IR Receiver		PWLRVN000	
Zone Controller		ABZCA	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)		0	
Wi-Fi		PWFMDD200	

※ ○ : Applied, - : Not applied Option : Refer to model name in table



	MODEL	UNIT	ARNU21GL3G4	ARNU24GL3G4
Cooling Capa	city	kW	6.2	7.1
Heating Capa	acity	kW	7.0	8.0
Power Input (H / M / L)	Nominal	W	72 / 53 / 48	103 / 63 / 48
Dimensions	Body	mm	1,100 x 190 x 700	1,100 x 190 x 700
(W x H x D)	Shipping	mm	1,262 x 255 x 781	1,262 x 255 x 781
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 2	19 x 2
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	2.54 (25)	2.54 (25)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	0 (0)	0 (0)
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	27.0	27.0
Sound Pressu	ire Levels (H / M / L)	dB(A)	35 / 29 / 28	36 / 33 / 28
Sound Power	Levels (H / M / L)	dB(A)	59 / 55 / 54	63 / 59 / 55
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU21GL3G4	ARNU24GL3G4		
Drain Pump	C			
Cassette Cover	-			
Refrigerant Leakage Detector	PRLDI	NVS0		
EEV Kit	PRGKO	24A0		
Independent Power Module	PRII	P0		
Robot Cleaner				
Pre Filter (Washable)	0			
Ion Generator	-			
CO <sub>2</sub> Sensor	·			
Ventilation Kit	-			
IR Receiver	PWLRV	N000		
Zone Controller	ABZCA			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi	PWFMD	DD200		

※ ○ : Applied, - : Not applied Option : Refer to model name in table

#### ARNU07GM2A4 / ARNU09GM2A4 ARNU12GM2A4 / ARNU15GM2A4 ARNU18GM3A4



	MODEL	UNIT	ARNU07GM2A4	ARNU09GM2A4	ARNU12GM2A4	ARNU15GM2A4	ARNU18GM3A4
Cooling Capacity		kW	2.2	2.8	3.6	4.5	5.6
Heating Capa	city	kW	2.5	3.2	4.0	5.0	6.3
Power Input (H / M / L)		W	32 / 29 / 27	32 / 29 / 27	33 / 30 / 28	33 / 30 / 28	97 / 70 / 51
Dimensions (W x H x D)	Body	mm	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 360 × 700
	Туре		Sirocco Fan				
	Motor Output x Number	W x No.	350 x 1	350 x 1	350 x 1	350 x 1	500 x 1
_	Air Flow Rate (H / M / L) (High static Mode - factory set)	m³/min	13.3 / 9.4 / 6.8	13.3 / 9.4 / 6.8	14.8 / 10.2 / 7.4	14.8 / 10.2 / 7.4	32.7 / 26.7 / 23.0
Fan	External Static Pressure	mmAq (Pa)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	13.3 / 9.4 / 6.8	13.3 / 9.4 / 6.8	14.8 / 10.2 / 7.4	14.8 / 10.2 / 7.4	32.7 / 26.7 / 23.0
	External Static Pressure	mmAq (Pa)	5 (49)	5 (49)	5 (49)	5 (49)	5 (49)
	Motor type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			-	-	-	-	-
	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	25 (1)	25 (1)	25 (1)	25 (1)	25 (1)
Net Weight		kg	38	38	38	38	44
Sound Pressu	re Levels (H / M / L)	dB(A)	33 / 33 / 32	33 / 33 / 32	34 / 33 / 32	34 / 33 / 32	38 / 36 / 34
Sound Power	Levels (H / M / L)	dB(A)	52 / 52 / 52	52 / 52 / 52	53 / 52 / 52	53 / 52 / 52	52 / 51 / 50
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm²	1.0 ~ 1.5 x 2C				

- Note:

  1. Due to our policy of innovation some specifications may be changed without notification.

  2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

  3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

  4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.

  4. Cooling: Indoor Ambient Temp, 27°CDB / 19°CWB, Outdoor Ambient Temp, 35°CDB / 24°CWB

  5. Heating: Indoor Ambient Temp, 20°CDB / 15°CWB, Outdoor Ambient Temp, 7°CDB / 6°CWB

  6. \*: Air flow rate could be different in accordance with External Static Pressure and setting value.

#### Accessories

CHASSIS	ARNU07GM2A4 ARNU09GM2A4 ARNU12GM2A4 ARNU15GM2A4	ARNU18GM3A4		
Drain Pump	0			
Cassette Cover	-			
Refrigerant Leakage Detector	PRLDNVSO			
EEV Kit	-			
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	0			
Ion Generator	-			
CO <sub>2</sub> Sensor	-			
Ventilation Kit	-			
IR Receiver	PWLRVN000			
Zone Controller	ABZCA			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi	PWFMDD200			

#### ARNU24GM3A4 / ARNU28GM3A4 ARNU36GB8A4 / ARNU42GB8A4 ARNU48GB8A4



	MODEL	UNIT	ARNU24GM3A4	ARNU28GM3A4	ARNU36GB8A4	ARNU42GB8A4	ARNU48GB8A4
Cooling Capacity kW		kW	7.1	8.2	10.6	12.3	14.1
Heating Capa	icity	kW	8.0	9.2	11.9	13.8	15.9
Power Input (H / M / L)		W	109 / 83 / 60	109 / 83 / 60	420 / 403 / 478	528 / 497 / 465	538 / 505 / 482
Dimensions (W x H x D)	Body	mm	1,250 × 360 × 700	1,250 × 360 × 700	1,562 x 460 x 688	1,562 x 460 x 688	1,562 x 460 x 688
	Туре		Sirocco Fan				
	Motor Output x Number	W x No.	500 x 1	500 x 1	375 x 2	375 x 2	375 x 2
_	Air Flow Rate (H / M / L) (High static Mode - factory set)	m³/min	35.5 / 30.6 / 26.2	35.5 / 30.6 / 26.2	49.0 / 37.3 / 30.2	54.2 / 41.3 / 31.8	57.2 / 43.0 / 34.0
Fan	External Static Pressure	mmAq (Pa)	6 (59)	6 (59)	18 (176)	18 (176)	18 (176)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	35.5 / 30.6 / 26.2	35.5 / 30.6 / 26.2	53.7 / 49.5 / 43.9	55.6 / 50.6 / 45.0	58.0 / 52.3 / 47.3
	External Static Pressure	mmAq (Pa)	5 (49)	5 (49)	9 (88)	9 (88)	9 (88)
	Motor type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			-	-	-	-	-
	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	25 (1)	25 (1)	25 (1)	25 (1)	25 (1)
Net Weight		kg	44	44	87	87	87
Sound Pressu	re Levels (H / M / L)	dB(A)	39 / 37 / 35	39 / 37 / 35	46 / 45 / 42	47 / 46 / 43	47 / 46 / 44
Sound Power	Levels (H / M / L)	dB(A)	53 / 52 / 51	53 / 52 / 51	65 / 64 / 62	66 / 65 / 63	66 / 65 / 64
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm²	1.0 ~ 1.5 x 2C				

- Note:

  1. Due to our policy of innovation some specifications may be changed without notification.

  2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

  3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

  4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.

  4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.

  5. Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 3°CDB / 24°CWB

  6. Heteronnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is Zero.

  5. Sound levels are measured at 50Pa External Static Pressure condition.

  6. \*: Air flow rate could be different in accordance with External Static Pressure and setting value.

#### Accessories

CHASSIS	ARNU24GM3A4 ARNU28GM3A4 ARNU36GB8A4 ARNU42GB8A4 ARNU48GB8A4			
Drain Pump	0			
Cassette Cover				
Refrigerant Leakage Detector	PRLDNVS0			
EEV Kit	-			
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	0			
Ion Generator				
CO <sub>2</sub> Sensor	·			
Ventilation Kit	-			
IR Receiver	PWLRVN000			
Zone Controller	ABZCA			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi	PWFMDD200			

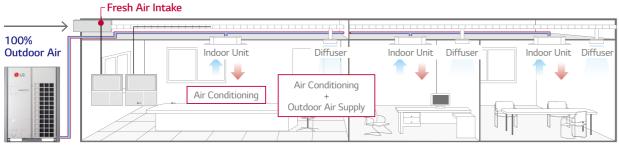
INDOOR UNITS SPECIFICATIONS

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

# **Fresh Outdoor Air Supply**

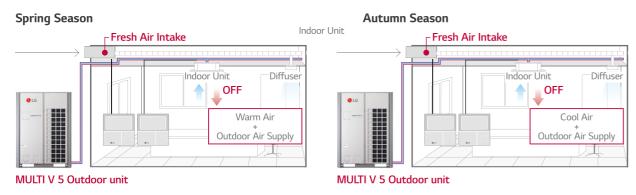
The LG Fresh Air Intake Unit (FAU) is the alternative solution for ventilation, which supplies the fresh outdoor air indoors as well as and simultaneously cools and heats the air inside. It means the indoor space can have positive air pressure consistently, which can block cold, hot or contaminated air from outside. This allows the indoor space to have consistent positive air pressure blocking cold air.



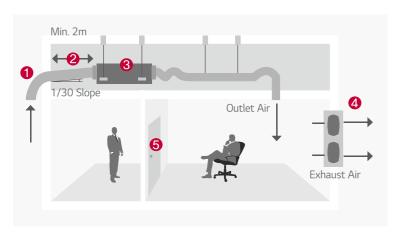
MULTI V 5 Outdoor unit

# **Economic Operation**

Natural outdoor air is utilized as seasons change for cost efficiency.



# **Installation Scene**



- 1 Inlet Hood
- 2 Intake Air Duct
- **3** Fresh Air Intake Unit **4** Exhaust Fan

#### ARNU76GB8Z4 / ARNU96GB8Z4



	MODEL	UNIT	ARNU76GB8Z4	ARNU96GB8Z4	
Cooling Capa	Cooling Capacity kV		22.4	28.0	
Heating Capacity		kW	21.4	26.7	
Power Input (H / M / L) Nominal		W	230 / 200 / 200	360 / 230 / 230	
Dimensions	Body	mm	1,562 x 460 x 688	1,562 x 460 x 688	
(W x H x D)	Shipping	mm	1,806 x 537 x 825	1,806 x 537 x 825	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W x No.	375 x 1	375 x 1	
Fan	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	23.7 / 13.2 / 13.2	35.7 / 23.7 / 23.7	
	External Static Pressure	mmAq (Pa)	22 (216)	22 (216)	
	Motor Type		BLDC	BLDC	
Air Filter			Long Life Filter	Long Life Filter	
ъ.	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	
Pipe Connections	Gas Side	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	
Weight	Body	kg	73.0	73.0	
Sound Pressu	re Levels (H / M / L)	dB(A)	45 / 43 / 43	47 / 45 / 45	
Sound Power	Levels (H / M / L)	dB(A)	70 / 67 / 67	72 / 70 / 70	
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

#### **▲** CAUTION

1. Operation range (Cooling : 5 C ~ 45 C) Reading : 5 C ~ 45 C) 2. Installation of exhaust rains recommended for a sealed room. 5. Induor Onlic Connection					
NO	CONNECTION CONDITION	COMBINATION			
1	Fresh air intake units only are connected with outdoor units	1) The total capacity of fresh air intake unit should be 50 ~ 100% of outdoor unit. 2) The max quantity of fresh air intake is 4 units.			
2	Mixture connection with general indoor unit and fresh intake units	1) The total capacity of indoor units (Standard Indoor Unit + Fresh Air Intake Unit) should be 50 - 100% of outdoor unit. 2) The total capacity of fresh air intake unit should be less than 30% of the total capacity of indoor units.			

#### Accessories

CHASSIS	ARNU76GB8Z4	ARNU96GB8Z4	
Drain Pump	7111107300001		
Cassette Cover		- -	
Refrigerant Leakage Detector	PRLD	NVS0	
EEV Kit	-	-	
Independent Power Module	PRI	IPO	
Robot Cleaner	-	-	
Pre Filter (Washable)	0		
Ion Generator			
CO <sub>2</sub> Sensor	-		
Ventilation Kit	-	-	
IR Receiver	PWLR\	VN000	
Zone Controller		-	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi	PWFM	DD200	

※ O : Applied, - : Not applied Option : Refer to model name in table

# COMFORT (CONVERTIBLE)

### Access your air conditioner anytime and from anywhere.

#### LG ThinQ

Wi-Fi Control

Search "LG ThinQ" on Google market or the App Store to download the app.



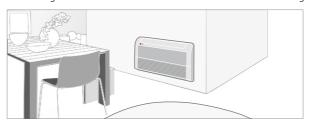
#### Easy Registration and Log-in

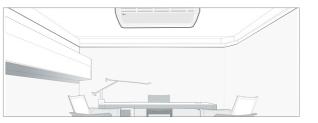
Follow the easy set-up steps that will activate LG ThinQ's impressive feature.



# **Flexible**

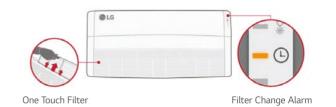
The ceiling and floor models can be installed either on the ceiling or on the floor.





# Filter Change Alarm

The filter change alarm informs you when the unit has been operating for 2,400 hours.



#### • Modern design with V-shape and black vane

Features & Benefits

• Powerful air speed and volume can reach up to 15m

#### **Key Applications**

• Restaurant

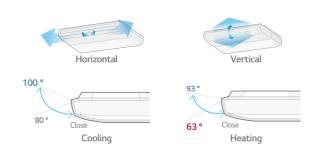
• Retail Shop

(	CEILINGS	CEILING & FLOOR CONVERTIBLE	CEILING SUSPENDED
Smart	Wi-Fi	0	0
Fast Cooling & Heating	Jet Cool	0	0
	Sleep mode	0	0
	Timer (On / Off)	0	0
Comfort	Timer (Weekly)	0	0
	Two thermistor control	0	0
	Group control	0	0

※ ○: Applied, - : Not applied

# **Air flow Direction Control**

Vertical air flow direction can be adjusted using remote controller, and horizontal air flow direction can be adjusted manually.



174 I 175 INDOOR UNITS KEY FEATURES

# **Differentiated Design**

Modern elegance design with V-shape and black vane is appropriate for any commercial space. It received iF Design Award.



# **Powerful Cooling & Heating**

High ceiling mode provides powerful cooling and heating up to 4.2m in height from floor, 15m away from ceiling.



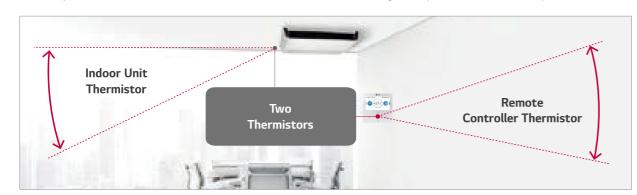
# One Touch & 2 Piece Filter

Easy in / out filter structure as well as a simplified two-piece filter, which slides out for easy cleaning and maintenance.



# **Two Thermistors Control**

Users can purchase a wired remote controller that includes a second thermistor, allowing for temperature checks from multiple locations.



#### ARNU18GV1A4 / ARNU24GV1A4 ARNU36GV2A4 / ARNU48GV2A4



**EILING & FLOOR CONVERTIBLE** 

	MODEL	UNIT	ARNU09GVEA4	ARNU12GVEA4	
Cooling Capacity k\		kW	2.8	3.6	
Heating Capacity		kW	3.2	4.0	
Power Input (H / M / L)	Nominal	W	19 / 15 / 11	28 / 19 / 15	
Exterior Colo	r		Morning Fog	Morning Fog	
RAL Code			RAL 9001	RAL 9001	
Dimensions	Body	mm	900 x 490 x 200	900 x 490 x 200	
(W x H x D)	Shipping	mm	975 x 279 x 562	975 x 279 x 562	
	Туре		Cross Flow Fan	Cross Flow Fan	
	Motor Output x Number	W x No.	27 x 1	27 x 1	
Fan	Air Flow Rate (H / M / L)	m³/min	7.6 / 6.9 / 6.2	9.2 / 7.6 / 6.9	
		cfm	268 / 244 / 219	325 / 268 / 244	
	Motor Type		BLDC	BLDC	
Air Filter			Pre Filter	Pre Filter	
ъ:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)	
Weight	Body	kg	13.3	13.3	
Sound Pressu	re Levels (H / M / L)	dB(A)	36 / 32 / 28	38 / 36 / 30	
Sound Power	Levels (H / M / L)	dB(A)	55 / 51 / 45	56 / 55 / 49	
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	
Transmission	Cable	mm² x cores	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU09GVEA4	ARNU12GVEA4
Drain Pump		-
Refrigerant Leakage Detector	PRLD	NVS0
EEV Kit	PRGK	024A0
Independent Power Module	PR	IIPO
Plasma Kit		-
Robot Cleaner		-
Pre Filter (Washable)		0
Ion Generator		-
CO <sub>2</sub> Sensor		-
Ventilation Kit		-
IR Receiver		-
Zone Controller		-
Dry Contact (with additional accessory)		, PDRYCB320 (Universal input), ut), PDRYCB500 (Modbus)
External Input (1 point)		0
Wi-Fi	PWFMI	DD200 1)

※ ○ : Applied, - : Not Applied Option: Refer to model name in table





	MODEL	UNIT	ARNU18GV1A4	ARNU24GV1A4	ARNU36GV2A4	ARNU48GV2A4
Cooling Capac	city	kW	5.6	7.1	10.6	14.1
Heating Capa	city	kW	6.3	8.0	11.9	15.9
Power Input (H / M / L)	Nominal	W	23 / 20 / 17	25 / 21 / 17	84 / 77 / 66	91 / 79 / 66
Exterior Color	r		Morning Fog	Morning Fog	Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001	RAL 9001	RAL 9001
Dimensions	Body	mm	1,200 x 235 x 690	1,200 x 235 x 690	1,600 x 235 x 690	1,600 x 235 x 690
(WxHxD)	Shipping	mm	1,315 x 320 x 772	1,315 x 320 x 772	1,715 x 320 x 772	1,715 x 320 x 772
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
F	Motor Output x Number	W x No.	85.9 x 1	85.9 x 1	125 x 1	125 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	13.5 / 12.5 / 12.0	14.0 / 13.0 / 12.0	27.0 / 24.0 / 20.0	29.0 / 24.0 / 20.0
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	29.0	29.0	37.0	37.0
Sound Pressu	re Levels (H / M / L)	dB(A)	36 / 34 / 33	37 / 35 / 33	48 / 46 / 44	49 / 47 / 44
Sound Power	Levels (H / M / L)	dB(A)	61 / 59 / 56	62 / 59 / 56	68 / 66 / 64	68 / 67 / 66
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup> x cores	1.0 ~ 1.5 × 2C			

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU18GV1A4	ARNU24GV1A4	ARNU36GV2A4	ARNU48GV2A4
Drain Pump		-		
Cassette Cover		-		
Refrigerant Leakage Detector		PRLDI	IVS0	
EEV Kit		-		
Independent Power Module	PRIP0			
Robot Cleaner	·			
Pre Filter (Washable)	0			
Ion Generator		-		
CO <sub>2</sub> Sensor		-		
Ventilation Kit		-		
IR Receiver		-		
Zone Controller		-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)			
External Input (1 point)		C		
Wi-Fi		PWFMI	D200	

※ ○ : Applied, - : Not Applied Option: Refer to model name in table



#### Features & Benefits

- 6 way flexible piping
- Cold draft window protection
- Condensation protection

#### **Key Applications**

• Residential building • Historical building

Hotel

FLOO	R STANDING	CONSOLE	FLOOR STANDING
Smart	Wi-Fi	0	0
Energy Efficiency	Jet Cool	-	0
Health	Ionizer	0	-
Fast Cooling & Heating	Jet Cool	0	-
	Sleep Mode	0	0
	Timer (On / Off)	0	0
Comfort	Timer (Weekly)	0	0
	Two Thermistor Control	0	0
	Group Control	0	0

※ ○: Applied, - : Not applied

# Wi-Fi Control

Access your air conditioner anytime and from anywhere.

# ្រាំ

#### LG ThinQ

Search "LG ThinQ" on Google market or the App Store to download the app.



# **Air Flow Direction Change**

During the cooling operation, the vane adjusts upwards to direct the air flow towards the ceiling. When heating, the vane directs the warm air downwards to balance the room temperature especially for floor.

Cooling Heating (Normal) Heating (Option)

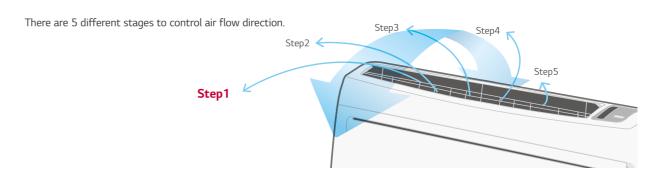
# **Cold Draft Protection**

The console protects cold draft from windows to provide comfortable environment.





# **5-Step Vane Control**



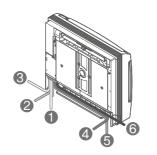
INDOOR UNITS KEY FEATURES

COMFORT (FLOOR STANDING)

# 6 Way Flexible Piping

It is possible to install and connect the outdoor unit in 6 different ways. (Right Side, Right Back, Right Floor, Left Side, Left Back, Left Floor)

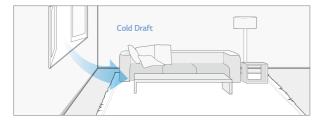




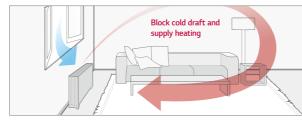
# **Protect Cold Draft**

The floor standing unit protects cold draft coming from window and preventing condensation.

#### Without Floor Standing

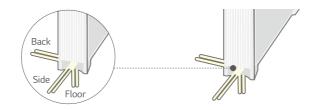






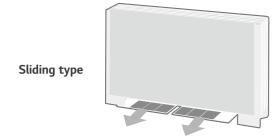
# 3 Way Flexible Piping

It is possible to install and connect the outdoor unit in 3 different ways. (Side, Back, Floor)

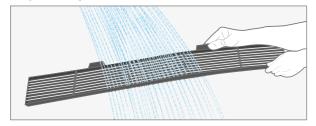


# **Sliding Type Filter**

Easy maintenance and extended product life with sliding type filter.



Easy cleaning





CONSOLE

# ARNU12GQAA4 / ARNU15GQAA4



	MODEL	LIBUT	ADMII 1200 A A A	A DAULIA E CO A A A		
	MODEL	UNIT	ARNU12GQAA4	ARNU15GQAA4		
Cooling Capacity		kW	3.6	4.5		
· · · · · · · · · · · · · · · · · · ·		kW	4.0	5.0		
Power Input (H / M / L)	Nominal	W	18 / 15 / 13	24 / 19 / 17		
Exterior Colo	r		Morning Fog	Morning Fog		
RAL Code			RAL 9001	RAL 9001		
Dimensions	Body	mm	700 x 600 x 210	700 x 600 x 210		
$(W \times H \times D)$	Shipping	mm	775 x 662 x 284	775 x 662 x 284		
	Туре		Turbo fan	Turbo fan		
F	Motor Output x Number	W x No.	48 x 1	48 x 1		
Fan	Air Flow Rate (H / M / L)	m³/min	7.5 / 5.9 / 4.8	8.7 / 6.7 / 5.9		
	Motor Type		BLDC	BLDC		
Air Filter			Pre Filter	Pre Filter		
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)		
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)		
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)		
Weight	Body	kg	14.0	14.0		
Sound Pressu	re Levels (H / M / L)	dB(A)	39 / 34 / 28	42 / 37 / 31		
Sound Power	Levels (H / M / L)	dB(A)	56 / 50 / 44	58 / 53 / 50		
Power Supply	,	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50		
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C		

- Note:

  1. Performance tested under EN14511

  2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

	MODEL	UNIT	ARNU07GQAA4	ARNU09GQAA4
Cooling Capa	city	kW	2.2	2.8
Heating Capa	city	kW	2.5	3.2
Power Input (H / M / L)	Nominal	W	15 / 12 / 10	15 / 12 / 10
Exterior Colo	r		Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001
Dimensions	Body	mm	700 x 600 x 210	700 x 600 x 210
$(W \times H \times D)$	Shipping	mm	775 x 662 x 284	775 x 662 x 284
	Туре		Turbo fan	Turbo fan
F	Motor Output x Number	W x No.	48 x 1	48 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	6.7 / 5.9 / 4.8	6.7 / 5.9 / 4.8
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)
Weight	Body	kg	14.0	14.0
Sound Pressu	re Levels (H / M / L)	dB(A)	37 / 34 / 28	37 / 34 / 28
Sound Power	Levels (H / M / L)	dB(A)	53 / 50 / 44	53 / 50 / 44
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	10~15 x 2C

Note:

1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F.) DB / 19°C (66.2°F.) WB, Outdoor temp. 35°C (95°F.) DB / 24°C (75.2°F.) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F.) DB / 15°C (59°F.) WB, Outdoor temp. 7°C (44.6°F.) DB / 6°C (42.8°F.) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU07GQAA4	ARNU09GQAA4			
Drain Pump		-			
Cassette Cover		-			
Refrigerant Leakage Detector	PRLD	NVS0			
EEV Kit	PRGKI	D24A0			
Independent Power Module	PR	IPO			
Robot Cleaner		-			
Pre Filter (Washable)	0				
Ion Generator					
CO2 Sensor		-			
Ventilation Kit		-			
IR Receiver		-			
Zone Controller		-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 point)	0				
Wi-Fi	PWFM	DD200			

<sup>※ ○ :</sup> Applied, - : Not Applied Option: Refer to model name in table

#### Accessories

CHASSIS	ARNU12GQAA4	ARNU15GQAA4			
Drain Pump		-			
Cassette Cover		-			
Refrigerant Leakage Detector	PRLC	DNVS0			
EEV Kit	PRGK	024A0			
Independent Power Module	PF	RIPO			
Robot Cleaner		-			
Pre Filter (Washable)	0				
Ion Generator	0				
CO2 Sensor		-			
Ventilation Kit		-			
IR Receiver		-			
Zone Controller		-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input), PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 point)	0				
Wi-Fi	PWFN	1DD200			

O : Applied, - : Not Applied
 Option: Refer to model name in table

**FLOOR STANDING** 

#### ARNU07GCEA4 / ARNU09GCEA4 ARNU12GCEA4 / ARNU15GCEA4 ARNU18GCFA4 / ARNU24GCFA4



\* A : Floor Standing with case

MODEL		UNIT	ARNU07GCEA4	ARNU09GCEA4	ARNU12GCEA4	ARNU15GCEA4	ARNU18GCFA4	ARNU24GCFA4
Cooling Capa	city	kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating Capa	city	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power Input (H / M / L)	Nominal	W	24 / 17 / 14	30 / 24 / 17	36 / 30 / 24	44 / 35 / 28	54 / 41 / 29	84 / 54 / 41
Exterior Colo	r		Morning Fog	Morning Fog	Morning Fog	Morning Fog	Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001	RAL 9001	RAL 9001	RAL 9001	RAL 9001
Dimensions	Body	mm	1,067 x 635 x 203	1,345 x 635 x 203	1,345 x 635 x 203			
(W x H x D)	Shipping	mm	1,154 x 705 x 289	1,432 x 705 x 289	1,432 x 705 x 289			
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 1, 5 x 1	19 x 2	19 x 2			
Fan	Air Flow Rate (H / M / L)	m³/min	8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5	10.5 / 9.5 / 8.5	11.5 / 10.0 / 9.5	16.0 / 14.0 / 12.0	18.0 / 16.0 / 14.0
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter	Pre Filter	Pre Filter
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)
Weight	Body	kg	27.0	27.0	27.0	27.0	34.0	34.0
Sound Pressu	re Levels (H / M / L)	dB(A)	35 / 33 / 31	36 / 34 / 32	37 / 35 / 33	38 / 37 / 35	40 / 37 / 34	43 / 40 / 37
Sound Power	Levels (H / M / L)	dB(A)	52 / 47 / 43	54 / 51 / 47	54 / 51 / 50	55 / 54 / 51	57 / 54 / 50	61 / 57 / 54
Power Supply	,	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	Cable	mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C			

- Note:

  1. Performance tested under EN14511

  2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU07GCEA4 ARNU09GCEA4 ARNU12GCEA4 ARNU15GCEA	4 ARNU18GCFA4 ARNU24GCFA4
Drain Pump	-	- -
Cassette Cover	-	-
Refrigerant Leakage Detector	PRLDNVS0	PRLDNVS0
EEV Kit	PRGK024A0	-
Independent Power Module	PRIP0	PRIP0
Robot Cleaner	-	-
Pre Filter (Washable)	0	0
Ion Generator	-	-
CO2 Sensor	-	-
Ventilation Kit	-	-
IR Receiver	PWLRVN000	PWLRVN000
Zone Controller	-	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (I PDRYCB400 (2 points input), PDRYCB50	
External Input (1 point)	0	0
Wi-Fi	PWFMDD200	PWFMDD200

<sup>※ ○ :</sup> Applied, - : Not Applied Option: Refer to model name in table

ARNU07GCEU4 / ARNU09GCEU4 ARNU12GCEU4 / ARNU15GCEU4 ARNU18GCFU4 / ARNU24GCFU4



W U: Floor Standing without case

	MODEL	UNIT	ARNIJO7GCELIA	APNILIO9GCELIA	ARNU12GCEU4	APNII15GCELIA	APNILI18GCELIA	ARNU24GCFU4
Cooling Cana	_	kW	2.2	2.8	3.6	4.5	5.6	7.1
Cooling Capa	•							
Heating Capa	icity	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power Input (H / M / L)	Nominal	W	24 / 17 / 14	30 / 24 / 17	36 / 30 / 24	44 / 35 / 28	54 / 41 / 29	84 / 54 / 41
Dimensions	Body	mm	978 x 639 x 190	1,256 x 639 x 190	1,256 x 639 x 190			
(W x H x D)	Shipping	mm	1,055 x 702 x 260	1,333 x 702 x 260	1,333 x 702 x 260			
	Туре		Sirocco Fan	Sirocco Fan				
Fan	Motor Output x Number	W x No.	19 x 1, 5 x 1	19 x 2	19 x 2			
Ган	Air Flow Rate (H / M / L)	m³/min	8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5	10.5 / 9.5 / 8.5	11.5 / 10.0 / 9.5	16.0 / 14.0 / 12.0	18.0 / 16.0 / 14.0
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter				
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)				
Weight	Body	kg	20.0	20.0	20.0	20.0	26.0	26.0
Sound Pressu	re Levels (H / M / L)	dB(A)	35 / 33 / 31	36 / 34 / 32	37 / 35 / 33	38 / 37 / 35	40 / 37 / 34	43 / 40 / 37
Sound Power	Levels (H / M / L)	dB(A)	52 / 47 / 43	54 / 51 / 47	54 / 51 / 50	55 / 54 / 51	57 / 54 / 50	61 / 57 / 54
Power Supply	,	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission Cable		mm <sup>2</sup>	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C				

- Note:

  1. Performance tested under EN14511

  2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

CHASSIS	ARNU07GCEU4 ARNU09GCEU4 ARNU12GCEU4 ARNU15GCEU4	ARNU18GCFU4 ARNU24GCFU4		
Drain Pump	-	-		
Cassette Cover	-	-		
Refrigerant Leakage Detector	PRLDNVS0	PRLDNVS0		
EEV Kit	PRGK024A0	-		
Independent Power Module	PRIP0	PRIP0		
Robot Cleaner	-	-		
Pre Filter (Washable)	0	0		
Ion Generator	-	-		
CO2 Sensor	-	-		
Ventilation Kit	-	-		
IR Receiver	PWLRVN000	PWLRVN000		
Zone Controller	-	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Un PDRYCB400 (2 points input), PDRYCB500 (			
External Input (1 point)	0	0		
Wi-Fi	PWFMDD200	PWFMDD200		

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<sup>※</sup> O : Applied, - : Not Applied Option: Refer to model name in table

			REQUIRED C	ONTROLLER			
NO.	NEW FUNCTION NAME (4 <sup>™</sup> GENERATION INDOOR)	FUNCTION DESCRIPTION	WIRED REMOTE CONTROLLER	CENTRALIZED CONTROLLER	REMARKS		
1	Energy Monitoring (Accumulated	Monitoring accumulated power consumption by Wired Remote Controller	0	0	Necessary to install the PDI (Power Distribution Indicator) and central controller     Combined with Multi V Water S outdoor unit, this function is not available.		
·	Electric Energy Check)	Monitoring accumulated power consumption by Central Control Device / PDI	-	0	Necessary to install the PDI (Power Distribution Indicator)      To make a report, central controller must be installed		
2	2 Set Point	2 set point control by Indoor and central controller     3 Synchronization function with remote control (Synchronization Setting and Monitoring)	0	0	* Wired remote controller and central controller must be installed  * Combined with Multi V Water S outdoor unit, this function is not available.		
3	Occupied / Unoccupied Scheduling Function (Sub Func. Enable)	Synchronization according to occupied / unoccupied by Indoor and Central control      Synchronization icon with remote controller (Synchronization Monitoring)	0	0	* Centralized control is able to when you combine only 4th generation indoor units (Use together with 2nd generation and 4th generation indoors, only wired remote controller is able to set this function as existing way)  * Wired remote controller or central controller must be installed (Function can be activated using just one control device.)  * Combined with Multi V Water S outdoor unit, this function is not available.		
4	Group Control	Group Control can use Additional function	0	0	* Check more details in PDB (Product Data Book) * Central controller can create and control group.		
5	Test Run (Heating)	Test run mode can be operated in cooling mode and heating mode for easy service	0	-			
6	Model Information Monitoring	Product Type / Indoor Type / Indoor capacity information can be monitored by remote controller	0	-			
7	Indoor unit address checking	Wired remote controller can check indoor unit address information	0	-			
8	Refrigerant Leakage Detection	Function error sign display when refrigerant leakage occurred	0	0	* Central controller has been installed, CH230 error code can be recognized (Old / New Same)  * Without Central Controller, it is able to recognize with wired remote controller (CH230)  * Combined with Multi V Water S outdoor unit, this function is not available.  * Accessory PRLDNVSO must be separately ordered		
9	Thermo On / Off range Setting (Cooling)	User can set cooling thermo on/off range with wired remote controller for prevention overcooling	0	-	* Thermo On / Off temperature setting (3 step)		
10	Thermo On / Off range Setting (Heating)	User can set heating thermo on/off range with wired remote controller for prevention overheating. (4 Step)	0	-	* Thermo On / Off temperature setting (4 step)		
11	Static Pressure 11 Step Control (Only for Ceiling Concealed Duct Type)	Depends on the installation environment, 4th generation Ceiling Concealed Duct can control the static pressure by 11 steps for providing comfortable environment	0	-	* Only applied in Ceiling Concealed Duct		
12	1 point External Input (On / Off control)	Indoor unit can be controlled by external devices without purchasing Dry contact as an accessory (All 4th generation indoors)	0	-	* Simple On/Off control by Dry Contact at Indoor  [Example of Contact port by product type]  * 2 Way Cassette: CN-CC Port (Wired remote controller installation function mode 41 is required)  * 1 Way / 4 Way Cassette / Ceiling Concealed Duct / Wall Mounted Unit / Console / FAU / Floor Standing (with case / without case): CN-EXT Port		
13	Filter Sign (Remaining Time)	The alarm activates when the filter needs to be cleaned, and the time remaining for cleaning is displayed on the screen.	0	0	* The alarm activates on the central controller, but the remaining time is not displayed.		
14	Auto restart function Disable / Enable	After the power failure compensation, stand by at OFF mode Restore the operation for the status before the power off	0	-			
15	Indoor Humidity display	Monitoring indoor humidity Wired Remote Controller	0	0	* Available only with Multi V 5		
16	Comfort Cooling setting	set the outdoor unit comfort cooling operation value	0	0	* Available only with Multi V 5		
17	Smart Load Control setting	Change the outdoor unit's Smart Load Control stage value.	0	0	* Available only with Multi V 5		
18	ODU Refrigerant Noise Reduction setting	set the outdoor unit's refrigerant noise reduction function	0	0	* Available only with Multi V 5		
19		set the start and end time of the outdoor unit's low noise mode operation	0	0	* Available only with Multi V 5		

	WIRED F	REMOTE CONT		DI F	CENTRALIZED CONTROLLER				
PREMIUM (PREMTA000 PREMTA000A PREMTA000B)	(PREMTB100)	STANDARD II (PREMTBB01) (PREMTB001)	SIMPLE FOR HOTEL (PQRCHCA0Q / QW)	SIMPLE (PQRCVCLOQ / QW)	AC EZ (PQCSZ250S0)	AC EZ TOUCH (PACEZA000)	AC SMART 5 (PACS5A000)	ACP 5 (PACP5A000)	AC MANAGER 5 (PACM5A000)
0	0	0	-	-	-	0	0	0	0
-	-	-	-	-	-	0	0	0	0
0	0	-	-	-	-	0	0	0	0
0	0	-	-	-	-	0	0	0	0
0	0	0	-	-	-	-	0	0	0
0	0	0	-	-	-	-	-	-	-
0	0	0	-	-	-	-	-	-	-
0	0	0	-	-	-	-	-	-	-
0	0	0	-	-	-	-	0	0	-
0	0	0	-	-	-	-	-	-	-
○ (4 step)	○ (4 step)	○ (3 step)	○ (3 step)	○ (3 step)	-	-	-	-	-
0	0	0	0	0	-	-	-	-	-
0	0	0	-	-	-	-	-	-	-
0	0	0	-	-	0	0	0	0	0
0	0	0	-	-	-	-	-	-	-
0	0		-	-	-	-	0	0	-
0	0	-	-	-	-	-	0	0	-
0	0	-	-	-	-	-	0	0	-
0	0	-	-	-	-	-	0	0	-
0	0	-	-	-	-	0	0	0	-

※ ○ : Applied, - : Not applied

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Note: 1) No.1, 2, 3, 8: Functions are available to use together with 4<sup>th</sup> generation Indoor units only, If used together 2<sup>th</sup> generation indoor unit and 4<sup>th</sup> generation indoor unit functions will not be activate. Combined with MULTI V Water S outdoor unit this function is not available 2) No. 4, 5, 6, 7, 9, 10, 11, 12, 13, 14: If used together 2<sup>th</sup> generation indoor unit and 4<sup>th</sup> generation indoor unit these functions will be activate only in 4th generation indoor 3) 2<sup>th</sup> generation indoor unit: Ceiling & Floor Convertible Unit, Ceiling Suspended Unit, HYDRO KIT (Low Temp. / High Temp.), ERV DX (with Humidifier, without Humidifier), AHU Communication Kit

			Premium	Standard III	Standard II	Simple	Simple for Hotel	Wireless		Dry C	ontact		
		Controll	er	20112		. 2.	101				-		
	Produ	ict		PREMTA000 PREMTA000A PREMTA000B	PREMTBB10 PREMTB100	PREMTBB01 PREMTB001	PQRCVCLOQ PQRCVCLOQW	PQRCHCAOQ PQRCHCAOQW	PWLSSB21H (H/P)	Simple Dry Contact PDRYCB000	2 points Dry Contact PDRYCB400	Dry Contact for Thermostat PDRYCB320	For Modbus PDRYCB500
		4 Way	ARNU-A4 ARNU-B4	0	0	0	0	0	0	0	0	0	0
-	Ceiling Mounted Cassette	2 Way / 1 Way	ARNU-B4 ARNU-C4	0	0	0	0	0	0	0	0	0	0
		Round CST	ARNU-A4	0	0	0	0	0	0	0	0	0	0
		High Sensible	ARNU-A4	0	0	0	0	0	Δ	0	0	0	0
	Ceiling Concealed Duct	High / Mid Statics	ARNU-A4	0	0	0	0	0	Δ	0	0	0	0
		Low Statics	ARNU-G4	0	0	0	0	0	Δ	0	0	0	0
	FAU (Fresh Air intake)		ARNU-Z4	0	0	0	0	0	Δ	0	0	0	0
-	Convertible & Ceiling Suspended		ARNU-A4	0	0	0	0	0	0	0	0	0	0
MULTIV	Console		ARNU-A4	0	0	0	0	0	0	0	0	0	0
•	Floor Standing		ARNU-A4 ARNU-U4	0	0	0	0	0	0	0	0	0	0
			ARNU-A4	0	0	0	0	0	0	0	0	0	0
	Wall Mounted		ARNU-R4	0	0	0	0	0	0	0	0	0	0
			ARNU-A4 ARNU-C4 ARNU-N4	0	0	0	0	0	0	0	0	0	0
•	HYDRO KIT <sup>1)</sup>		ARNH-A4	-	-	-	-	-	-	0	-	0	-
	Ventilation	19	Energy Recovery Ventilator	0	0	0	-	-	-	0	-	-	0
-	venulatiOH		Energy Recovery Ventilator with DX coil	0	0	0	-	-	-	0	-	-	0
	AHU Commu	unication Kit	*1.5 ***********************************	0	0	0	-	-	Δ	-	-	-	-

Controller	Name	D		d Remote Cont		S:l. (11-4-1)	Wireless Remote	Wi-Fi Modem
		Premium	Standard III	Standard II	Simple	Simple (Hotel)	Controller	*
Model Nar	пе	250 ) === 0 0	0.000			A MO OF A MO		<b>●</b> re
		PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001 PREMTBB01	PQRCVCL0Q PQRCVCL0QW	PQRCHCA0Q PQRCHCA0QW	PWLSSB21H (H/P)	PWFMDD20
	On / Off	0	0	0	0	0	0	0
	Fan Speed Control	0	0	0	0	0	0	0
	Temperature Setting	0	0	0	0	0	0	0
	Mode Change	0	0	0	0	-	0	0
	Auto Swing	0	0	0	0	0	0	
Basic	Vane Control (Louver Angle)	0	0	0	0	0	0	0
	E.S.P (External Static Pressure)	0	0	0	0	0	-	-
-	Electric Failure Compensation	0	0	0	0	0	-	0
	Indoor Temperature Display	0	0	0	0	0	0	
	ALL Button Lock (Child Lock)	0	0	0	0	0	-	-
-	Schedule / Timer	Weekly - Yearly	Weekly - Yearly	Weekly	-	-	Sleep / On / Off	Weekly
	Additional Mode Setting 1)	0	0	0	-	-	-	-
	Time Display	0	0	0	-	-	0	-
	Humid. Display	0	0	-	-	-	-	-
	Advanced Lock (mode, set point, set point range, on/off Lock)	Advanced Lock	Advanced Lock	-	-	-	-	-
Advanced	Filter Sign	0	0	0	-	-	-	-
	Energy Management 2)	0	0	0	-	-	-	-
	Dual Set Point	0	0	-	-	-	-	-
	Human Detection	-	0	-	-	-	-	-
	Temp, Humidity Compensation	0	0	-	-	-	-	-
	Wi-Fi AP mode setting	0	0	0	0	0	0	-
	Operation Status LED	0	0	0	0	0	-	-
	Wireless Remote Controller Receiver	O 3)	-	○ 3)	○ 3)	○ 3)	-	-
ETC	Display	5 inch Color	4.3 inch Color	4.3 inch mono	2.6 inch mono	2.6 inch mono	2 inch mono	-
	Size (W x H x D, mm)	137 x 121 x 16.5	120 x 120 x 16	120 x 121 x 16	70 x 121 x 16	70 x 121 x 16	51 x 153 x 26	48 x 68 x 1
	Black Control for Screen Saver	0	0		-	-	<del>-</del>	

<sup>#</sup> O : Compatible,  $\triangle$  : Need wired remote controller / IR receiver, - : Not compatible 1) It has a separate remote controller

<sup>\*\*</sup> O : Applied, - : Not Applied

1) It might not be indicated or operated at the partial product

2) Centralized control (PACEZA000 / PACSSA000 / PACPSA000 / PLNWKB000) and PDI (PQNUD1S40 / PPWRDB000) should be installed for this function

3) For ceiling type duct

Note

- Indoor unit should have functions requested by the controller

- If you need more detail, please refer to the manual of product. (http://partner.lge.com; Home> Doc.Library> Manual)

# 192-201

# **HOT WATER SOLUTION**

HYDRO KIT (LG Hydro Kit 50

HOT WATER SOLUTION

# **HYDRO KIT**

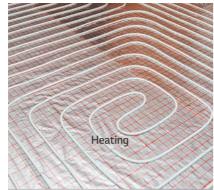
#### **Features & Benefits**

- Lower operation cost compared to fossil fuel-based systems such as boilers.
- More energy saving through MULTI V heat recovery system.

#### **Key Applications**

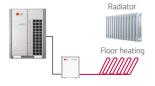
 Where Hot Water is needed such as domestic Hot Water, In-floor or radiant heat. Where cold water is needed such as Fan coil unit and chilled beam.







Radiant Heating / Cooling

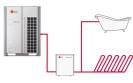




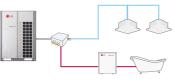


Hot Water / Cold Water

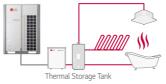
Combination



Hot water+ Radiant heating



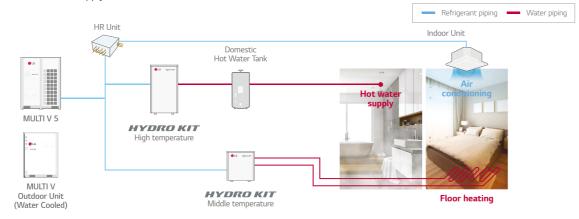
HR unit (Cooling & Hot water)



Thermal Storage System

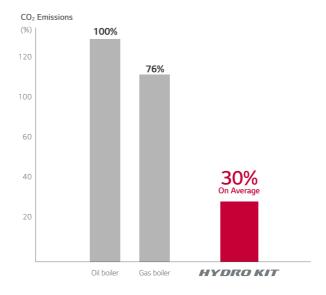
# **Total Solution**

Total solution provided with heat pump, air conditioning (Cooling by refrigerant and cold water / heating by refrigerant hot water) and domestic hot water supply.



# **Eco-conscious Solution**

Green energy solution through the reduction of CO<sub>2</sub> emmisions.

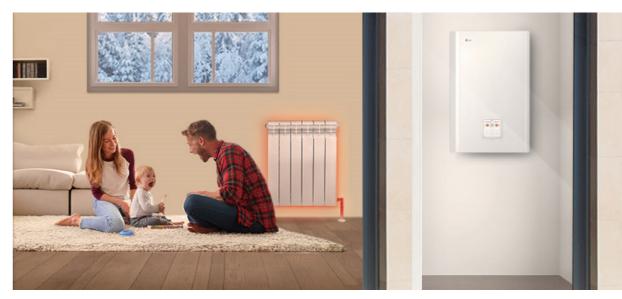






# **Space Saving**

Wall mounted hydro kit with Multi V S outdoor is suitable for residential application with its compact size and design.





# Compatible with compact R32 Multi V S

Product Volume (m³)

1.63

1.20

LG MULTI V S R32

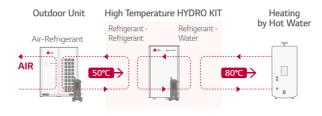
D

P

HOT WATER SOLUTION KEY FEATURES

**FFICIENCY** 

# High Temperature HYDRO KIT Cycle Diagram





#### 1st Proposal MULTI V 5 HYDRO KIT

(Air Conditioning + Hot Water Supply + Floor Heating) 2<sup>nd</sup> Proposal MULTI V 5 Air-Conditioning + Gas Boiler (Hot Water Supply + Floor Heating) 3rd Proposal MULTI V 5 Air-Conditioning + Oil Boiler (Hot Water Supply + Floor Heating)

#### **Analysis Conditions**

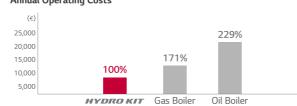
- Building Type : Dormitory, Flats Cooling / Floor Heating / Sanitary Hot Water for 10 years
- Cooling: MULTI V IV Indoor Unit
- Floor Heating : Medium Temp. HYDRO KIT (1ea)
- Sanitary Hot Water: High Temp. HYDRO KIT (2ea), Sanitary Hot Water Tanks
- Electricity Cost : Average Cost in EU
- Gas Cost : Average Cost in EU
- Oil Cost : Average Cost in EU

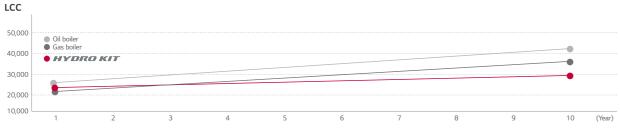
# **Annual Operating Costs**

**Cost Savings with High Efficiency** 

Equivalent installation cost of traditional boiler with reduced operational costs.



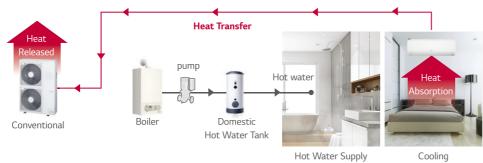




# **Energy Savings through Heat Recovery**

#### Conventional

Absorbed heat is released to outdoor air.



Absorbed heat from indoor space is used for making hot water.



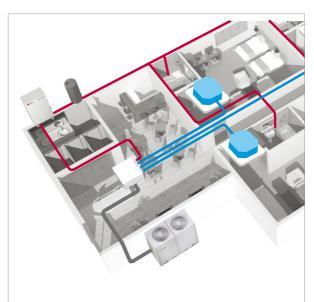
# **Various Applications**

Applicable to a variety of facilities including hospitals, residences and resorts that need floor heating and domestic hot water supply.



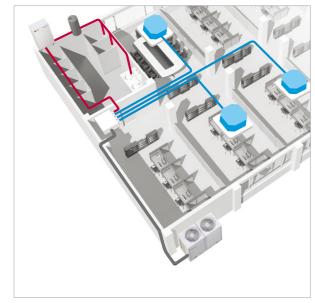
# **Hotel Application**

Constant simultaneous cooling and heating operation during summer to provide hot water by using wasted heat energy from indoor cooling process.



# **Office Application**

Hot water can be supplied at all times in the office by cooling the HR unit to warm up the sanitary tank, using waste



HOT WATER SOLUTION KEY FEATURES 196 I 197

#### ARNH18GK1A4 / ARNH24GK1A4 ARNH30GK1A4

Steps of Pump Performance

Upper Limit

W

bar

bar

Power input Min. ~ Max.

Volume

Water

pressure Water

pressure Mesh size

Material Pressure

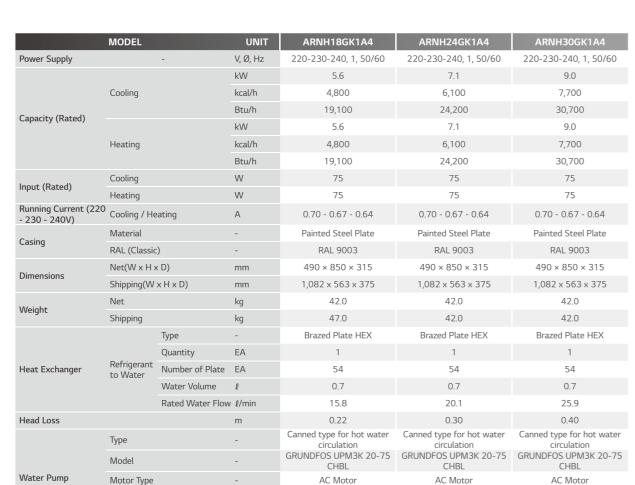
**Expansion Vessel** 

Strainer

Relief valve



HYDRO KIT



Variable capacity 10% to Variable capacity 10% to

100%

3 ~ 60

8.0

3.0

1.0

28 mesh

Stainless Steel

3.0

100%

3 ~ 60

8.0

3.0

1.0

28 mesh

Stainless Steel

3.0

Variable capacity 10% to

100%

3 ~ 60

8.0

3.0

1.0

28 mesh

3.0

Stainless Steel



	MODEL		UNIT	ARNH18GK1A4	ARNH24GK1A4	ARNH30GK1A4
	Туре		-	Sheath	Sheath	Sheath
	Number of Heati	ing Coil	EA	2	2	2
	Capacity Combination		kW	3.0 + 3.0	3.0 + 3.0	3.0 + 3.0
	Operation		-	Automatic	Automatic	Automatic
Backup Heater	Heating Steps		Step	2	2	2
	Power Supply		V, Ø, Hz	220-240, 1, 50	220-240, 1, 50	220-240, 1, 50
	FLA		А	31.0	31.0	31.0
	Power Cable (HO (Included Earth)	7RN-F)	mm2x cores	4.0 x 3C	4.0 x 3C	4.0 x 3C
	Туре		-	Vortex	Vortex	Vortex
	Model		-	SIKA VVX20	SIKA VVX20	SIKA VVX20
Flow Sensor	Measuring Range	Min. ~ Max.	ℓ/min	5 ~ 80	5 ~ 80	5 ~ 80
	Flow (Trigger Point)	Min.	ℓ/min	7.0	7.0	7.0
Temperature Control	,		-	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Water Tank	Type(Sensor Holder)		-	Male PT 1/2 inch	Male PT 1/2 inch	Male PT 1/2 inch
Temperature Sensor	Length		m	12	12	12
Sound Absorbing The	rmal Insulation Ma	aterial	-	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			-	Fuse	Fuse	Fuse
	Water Side	Inlet	-	Male PT 1 inch	Male PT 1 inch	Male PT 1 inch
Piping Connections	vvater Side	Outlet	-	Male PT 1 inch	Male PT 1 inch	Male PT 1 inch
Piping Connections	Refrigerant Side	Liquid	mm(inch)	Ø 9.52(3/8)	Ø 9.52(3/8)	Ø 9.52(3/8)
	Reffigerant Side	Gas	mm(inch)	Ø 15.88(5/8)	Ø 15.88(5/8)	Ø 15.88(5/8)
Power Cable Supply C	able (H07RN-F)		mm² x cores	2.5 x 3C	2.5 x 3C	2.5 x 3C
Communication Cable	(VCTF-SB)		mm² x cores	1.0~1.5 × 2C	1.0~1.5 × 2C	1.0~1.5 × 2C
		Туре	-	R32	R32	R32
	Refrigerant to	Precharged Amount	kg (lbs)	-	-	-
Refrigerant	Water	Additional Charging Amount	kg (each)	0.43	0.43	0.43
		Control	-	EEV	EEV	EEV
Sound Pressure Level	Cooling / Heating	Rated	dB(A)	35	35	35
Sound Power Level	Cooling / Heating	Rated	dB(A)	44	44	44

HOT WATER SOLUTION SPECIFICATIONS **198** I 199

#### ARNH04GK3A4 / ARNH08GK3A4



	MODEL	UNIT	ARNH04GK3A4	ARNH08GK3A4
Heating Capa	city	kW	13.8	25.2
Power Input	Nominal <sup>1)</sup>	W	2,300	5,000
Exterior Colo	r		Morning Gray	Morning Gray
RAL Code			RAL 7030	RAL 7030
Dimensions	Body	mm	520 x 1,080 x 330	520 x 1,080 x 330
$(W \times H \times D)$	Shipping	mm	682 x 1,168 x 423	682 x 1,168 x 423
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)
Connections	Drain Pipe (Internal Dia.)	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Water Pipe	Inlet	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Connections	Outlet	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Weight	Body	kg	87.0	91.0
Sound Pressu	re Levels (H / M / L)	dB(A)	43	46
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

1) Nominal: Performance tested under EN14511

- Note:

  1. Capacities are based on the following conditions:

   Heating: Indoor 20°C (68°F) DB / 15°C (59°F) WB, Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB, Water Inlet 55°C (131°F) / Outlet 65°C (149°F)

  2. Piping Length: Interconnected Pipe Length = 7.5m

  3. Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

  4. MULTI V S 4HP (ARUN040GSSO, ARUN040LSSO) cannot be connected to Hydro Kit.

  5. MULTI V Water S cannot be connected to Hydro Kit.

LG	100
HYDRO KIT	6
	18
	13

Cooling Capacity Heating Capacity

RAL Code

Power Input Nominal<sup>1)</sup> Exterior Color

Connections Gas Side

Water Pipe Inlet

Connections Outlet

Weight Body

Power Supply

Dimensions Body

(W x H x D) Shipping

Liquid Side

Sound Pressure Levels (H / M / L) dB(A)

Drain Pipe (Internal Dia.) A (inch)

ARNH04GK2A4 / ARNH10GK2A4

#### Communication Cable mm² x No.

- 1) Nominal : Performance tested under EN14511
- 1) NOTIFIED THE PROTOCOLOGY CONTROL OF CONTR

12.3

13.8

10

Morning Gray

RAL 7030

520 x 631 x 330

677 x 687 x 418

Ø9.52 (3/8)

Ø15.88 (5/8)

25A (Male PT 1)

25A (Male PT 1)

25A (Male PT 1)

29.2

26

1, 220-240, 50

1.0 ~ 1.5 x 2C

28.0

31.5

10

Morning Gray

RAL 7030

520 x 631 x 330

677 x 687 x 418

Ø9.52 (3/8)

Ø22.2 (7/8)

25A (Male PT 1)

25A (Male PT 1)

25A (Male PT 1)

33.7

26

1, 220-240, 50

1.0 ~ 1.5 x 2C

kW

kW

W

mm

mm

mm (inch)

mm (inch)

A (inch)

A (inch)

kg

Ø, V, Hz

#### Accessories

CHASSIS	ARNH04GK2A4	ARNH10GK2A4			
Drain Pump		-			
Cassette Cover		-			
Refrigerant Leakage Detector	PRLD	NVS0			
EEV Kit		-			
Independent Power Module					
Robot Cleaner	-				
Pre Filter (Washable)					
Ion Generator	-				
CO <sub>2</sub> Sensor					
Ventilation Kit					
IR Receiver		-			
Zone Controller		-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB320 (Universal input)				
External Input (1 point)	0				
Wi-Fi	PWFM	DD200			

※ ○ : Applied, - : Not applied Option : Refer to model name in table

#### Accessories

aurana.		1 5311 100 01/01 1
CHASSIS	ARNH04GK3A4	ARNH08GK3A4
Drain Pump	-	-
Cassette Cover	-	-
Refrigerant Leakage Detector	PRLD	NVS0
EEV Kit	-	-
Independent Power Module		
Robot Cleaner	-	-
Pre Filter (Washable)	-	-
Ion Generator	-	-
CO <sub>2</sub> Sensor	-	-
Ventilation Kit	-	-
IR Receiver	-	-
Zone Controller	-	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact),	PDRYCB320 (Universal input)
External Input (1 point)		
Wi-Fi	PWFM	DD200

※ ○ : Applied, - : Not applied Option : Refer to model name in table

HOT WATER SOLUTION SPECIFICATIONS

# 202-213

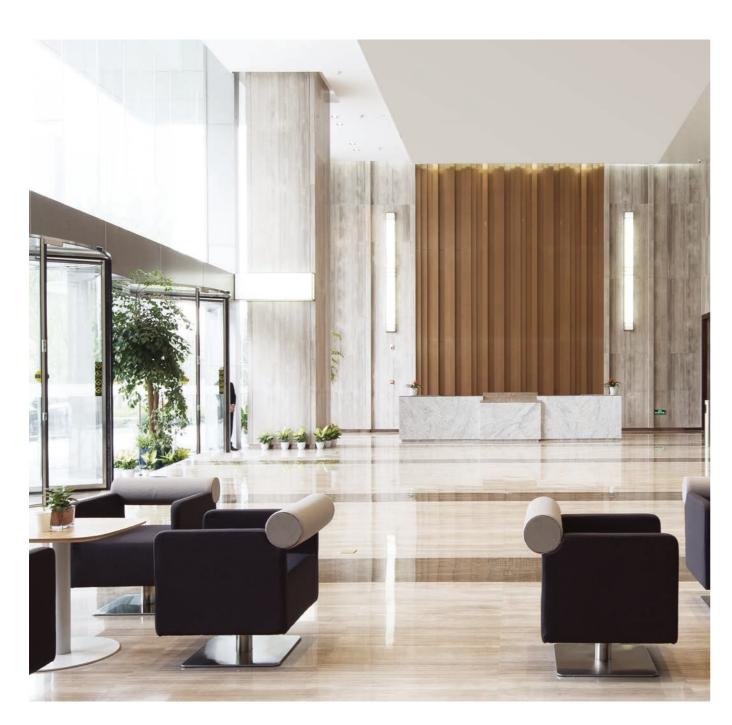
# **VENTILATION SOLUTIONS**

ERV / ERV WITH DX COIL

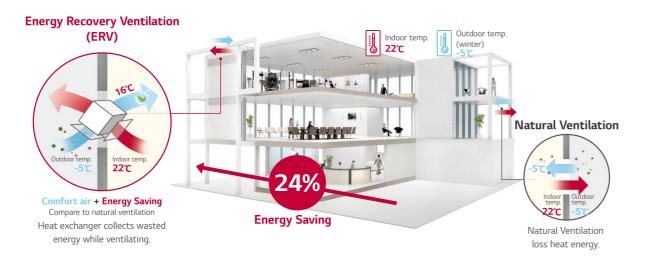


VENTILATION SOLUTIONS

HIGH EFFICIENCY

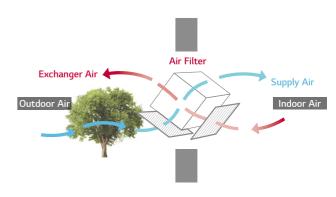


# **Necessity of ERV**



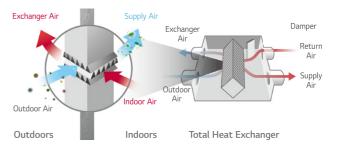
# **High Efficiency Heat Exchanger**

Efficiency and comfort is ensured through the high-efficiency energy recovery central core which recovers energy from the indoor air and transfers it to the fresh incoming air without mixing the air stream.



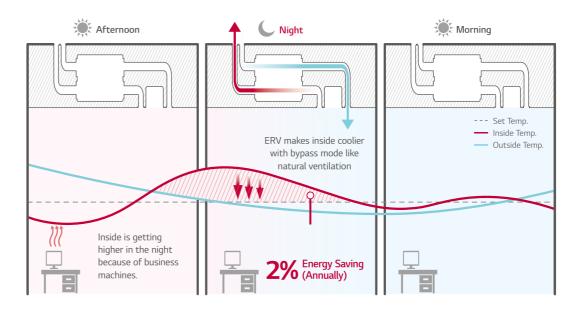
# **Exhaust System**

The exhaust system uses a high static sirocco fan to effectively remove contaminants from indoor air. Supply and exhaust air flows are completely separated in the heat exchanger, allowing the LG ERV to filter out impurities before supplying outdoor air to ensure indoor air is fresh and healthy.



# **Night Time Free Cooling**

During summer nights, indoor heat can be discharged outdoors and cool outdoor air can be brought indoors for energy savings.



- \*\* This function is operated with \*Night Time Free Cooling' on remote controller (with MULTI V only)
  \*\* Energy saving ratio can be differed by weather condition.
  \*\* Test Condition

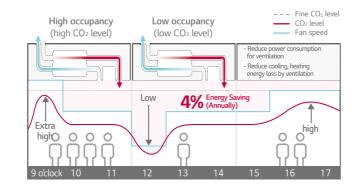
- :: rest Cultilloll
   Office (49,000ft²) / Occupancy : 30 / Area : London, UK
   ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination
   Other conditions are subject to BREEAM.

VENTILATION SOLUTION KEY FEATURES 204 I 205

# CO<sub>2</sub> Auto Operation

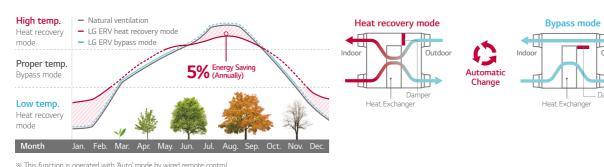
LG ERV reduces energy loss with auto fan speed control following CO<sub>2</sub> level.

- % This function is operated with 'Night Time Free Cooling' on remote controller.
- \*\* Kenergy saving ratio can be differed by weather condition.
   \*\* Test Condition Office (49,000ft²) / Occupancy: 30 / Area: London, UK ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination Other conditions are subject to BREEAM



# **Seasonal Auto Operation**

LG ERV senses outdoor temperature and operates automatically following weather conditions.



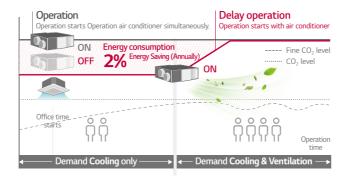
### \* Energy saving ratio can be differed by weather condition. \*\* Test Condition: - Office (49,000ft²) / Occupancy: 30 / Area: London, UK

- ERV (1,000 CMH) + MULTI V 4 (12HP) Unit Combination Other conditions are subject to BREEAM

# **Delay Operation**

When the air conditioner and ERV are switched on simultaneously, delay operation can reduce unnecessary heating and cooling energy loss by slowing down automatic ERV operation.

- \* This function is operated with 'Night Time Free Cooling' on remote controller. In tunction is operated with Night I lime Free Looling on remote controller. (with MULTI V only)
   Energy saving ratio can be differed by weather condition.
   Test Condition - Office (49,000ft2) / Occupancy: 30 / Area: London, UK - ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination
   Other conditions are subject to BREEAM



# CO<sub>2</sub> Level Monitoring

 $CO_2$  sensor senses  $CO_2$  level in the room. Users can monitor  $CO_2$  level on new wired remote controller, and ERV controls the fan speed automatically following the level.

#### CO<sub>2</sub> Level Visualization

 $\ensuremath{\mathsf{CO}}_2$  sensor senses indoor  $\ensuremath{\mathsf{CO}}_2$  level and displays it on new wired remote



#### Main display

If the CO<sub>2</sub> level is above 900ppm in the room, the red mark is on.

#### **Further information**

CO2 level and room condition are displayed continuously.







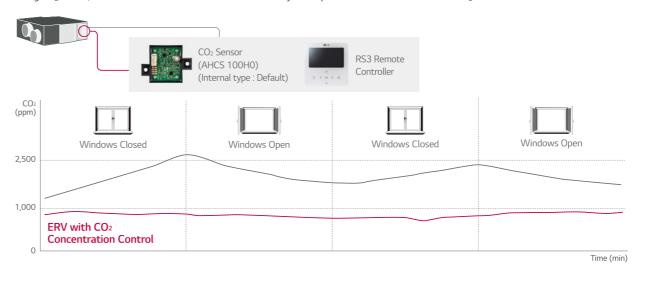
COMFORT

RELIABILITY

### \* Applicable to only Standard III, Premium

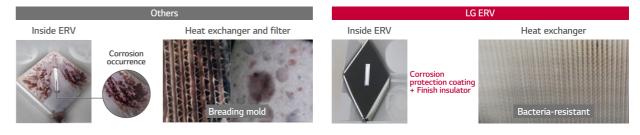
# CO<sub>2</sub> Concentration Control

Using CO<sub>2</sub> sensor, LG ERV controls exhaust air flow automatically to keep indoor air fresh under settled CO<sub>2</sub> concentration.



# **High Durability**

LG ERV durability is increased through bacteria-resistant material of heat exchanger and corrosion protection coating. It prevents shortening of product life due to corrosion or mold, and supplies high quality air inside by minimizing bacteria.



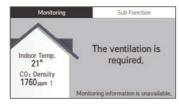
VENTILATION SOLUTION KEY FEATURES 206 I 207

CONVENIENC

# **Easy Control**

Wired remote controller is easy for usage.









- · Navigation buttons, easy to use.
- Easy installation setting

#### Visible

- Indoor CO<sub>2</sub> level
- Alarm for filter change / remaining time to change filters

#### Convenient

- Flexible display
- Dual display with air conditioner
- Zoom selected directory to increase legibility

# **Group Control**

1 wired remote controller up to 16 ERV (Including air conditioner). It is convenient for large common space such as lobby.

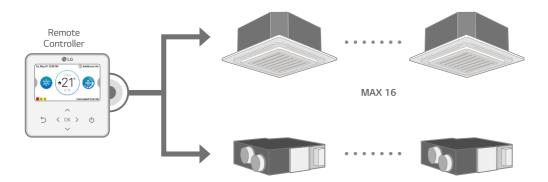
#### Several units combination

16 units group control is available with 1 remote controller.



# **Interlocking with Air Conditioning System**

- LG ERV can be interlocked with air conditioners and controlled individually.
- This function can be operated when the system is connected with 1 remote controller.

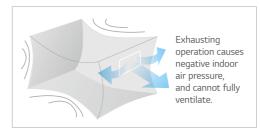


### **Fast Ventilation Mode**

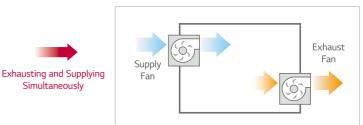
Fast ventilation mode prevents the spread of contaminants under negative indoor pressure, and makes indoor air fresh and comfortable quickly.

Simultaneously

#### Only Exhausting

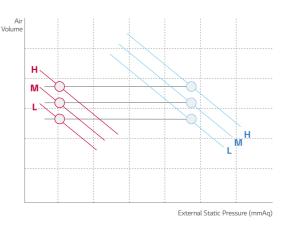


#### **Fast Ventilation Mode**



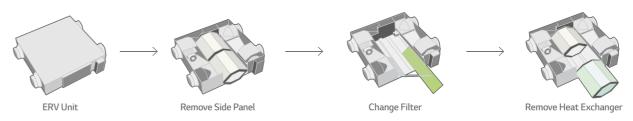
# **External Static Pressure Control**

The high static pressure fan can control the air volume depending on the length of the duct. It is also easy to control the pressure level by using the remote controller for a more flexible duct installation and easier testing.



# **Easy Cleaning and Filter Change**

Filter can be conveniently changed and cleaned.



VENTILATION SOLUTION KEY FEATURES 208 I 209 RV

VENTILATION SOLUTIONS



	MODEL		UNIT	LZ-H025GBA4	LZ-H035GBA5	LZ-H050GBA5	
Dimensions (W x H x D)	Body		mm		988 x 273 x 1,014		
Weight	Body		kg	44			
Power Supply			Ø, V, Hz				
Normal Air flow	Iormal Air flow		m³/h	250	350	500	
	Operating Step				Super-high / High / Low		
	Current SH / H / L		Α	0.70 / 0.60 / 0.42	1.05 / 0.90 / 0.50	1.65 / 1.56 / 0.80	
	Power Input	SH/H/L	W	97 / 87 /52	150 / 125 / 60	247 / 230 / 95	
	Air Flow	SH/H/L	m³/h	250 / 250 / 150	350 / 350 / 210	500 / 500 / 320	
	External Static Pressure	SH/H/L	Pa	100 / 70 / 50	150 / 100 / 50	150 / 100 / 50	
ERV Mode	Temperature Exchange Efficiency	SH/H/L	%	80 / 80 / 83	80 / 80 / 82	79 / 79 / 82	
	Enthalpy Exchange Efficiency	Heating (SH / H / L)	%	70 / 70 / 72	75 / 75 / 80	75 / 75 / 78	
		Cooling (SH / H / L)	%	66 / 66 / 68	71 / 71 / 75	68 / 68 / 75	
	Energy Label	A+ to G Scale		А	В	В	
	Sound Pressure Level	SH/H/L	dB(A)	29 / 28/ 24	35 / 32 / 26	37 / 36 / 28	
	Sound Power Level	SH/H/L	dB(A)	50	53 / 50 / 42	57 / 56 / 46	
	Operating Step				Super-high / High / Low		
	Current	SH/H/L	Α	0.70 / 0.60 / 0.42	1.05 / 0.90 / 0.50	1.65 / 1.56 / 0.80	
Bypass Mode	Power Input	SH/H/L	W	97 / 87 /52	150 / 125 / 60	247 / 230 / 95	
bypass wode	Air Flow	SH/H/L	m³/h	250 / 250 / 150	350 / 350 / 210	500 / 500 / 320	
	External Static Pressure	SH/H/L	Pa	100 / 70 / 50	150 / 100 / 50	150 / 100 / 50	
	Sound Pressure Level	SH/H/L	dB(A)	29 / 29/ 25	35 / 33 / 26	37 / 37 / 28	
Duct Work		Qty	EA		4		
Duct Work		Size (Ø)	mm		Ø200		
Cupply Air Ean		Qty	EA		1		
Supply Air Fan		Туре			Direct-Drive Sirocco		
Exhaust Air Fan		Qty	EA		1		
EXIIAUST AIT FAIT		Туре			Direct-Drive Sirocco		
		Qty	EA		2		
Filters		Туре			Cleanable fibrous fleeces		
		Size (W x H x D)	mm		855 x 10 x 166		

Note:

1. ERV mode: Total Heat Recovery Ventilation mode

2. Refer to dimensional drawings.

3. Noise level:

- The operating conditions are assumed to be standard

- Sound measured at 1.5m below the center the body.

- Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment is installed.

- The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.

4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature: 26.5°C DB, 64.5% RH, Outdoor Temperature: 34.5°C DB, 75% RH

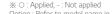
5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature: 20.5°C DB, 59.5% RH, Outdoor Temperature: 5°C DB, 65% RH

6. Temperature Exchange efficiency is tested at heating condition.

#### Accessories

CHASSIS	LZ-H025GBA4	LZ-H035GBA5	LZ-H050GBA5		
Drain Pump		-			
Cassette Cover		-			
Refrigerant Leakage Detector		-			
EEV Kit		-			
Independent Power Module		-			
Robot Cleaner		-			
Pre Filter (Washable)		-			
Ion Generator		-			
CO <sub>2</sub> Sensor		0			
Ventilation Kit	-				
IR Receiver		-			
Zone Controller		-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB500 (Modbus)				
External Input (1 point)		-			
Wi-Fi		-			

※ ○ : Applied, - : Not applied Option : Refer to model name in table







	MODEL		UNIT	LZ-H080GBA5	LZ-H100GBA5	LZ-H150GBA5	LZ-H200GBA5
Dimensions (W x H x D)	Body		mm	1,101 x 40	05 x 1,230	1,353 x 815 x 1,230	
Weight	Body		kg	63		130	
Power Supply			Ø, V, Hz	1, 220-	240, 50	1, 220-	240, 50
Normal Air flow			m³/h	800	1,000	1,500	2,000
	Operating Step			Super-high /	/ High / Low	Super-high /	/ High / Low
	Current	SH/H/L	А	2.13 / 1.75 / 1.00	2.92 / 2.38 / 1.40	4.26 / 3.50 / 2.00	5.92 / 4.76 / 2.80
	Power Input	SH / H / L	W	328 / 266 / 144	463 / 370 / 208	660 / 530 / 290	926 / 740 / 420
	Air Flow	SH / H / L	m³/h	800 / 800/ 660	1,000 / 1,000 / 800	1,500 / 1,500 / 1,200	2,000 / 2,000 / 1,600
EDV M. J.	External Static Pressure	SH / H / L	Pa	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50
ERV Mode	Temperature Exchange Efficiency	SH/H/L	%	82 / 82 / 83	80 / 80 / 81	82 / 82 / 83	80 / 80 / 81
	Enthalpy Exchange	Heating (SH / H / L)	%	73 / 73 / 76	71 / 71/ 73	73 / 73 / 76	71 / 71/ 73
	Efficiency	Cooling (SH / H / L)	%	66 / 66 / 70	64 / 64 / 67	66 / 66 / 70	64 / 64 / 67
	Sound Pressure Level	SH / H / L	dB(A)	40 / 36 / 32	40 / 37 / 33	43 / 39 / 35	43 / 40 / 36
	Sound Power Level	SH / H / L	dB(A)	56 / 53 / 47	59 / 56 / 52	59 / 56 / 50	62 / 59 / 55
	Operating Step			Super-high / High / Low		Super-high /	/ High / Low
	Current	SH/H/L	А	2.13 / 1.75 / 1.00	2.92 / 2.38 / 1.40	4.26 / 3.50 / 2.00	5.92 / 4.76 / 2.80
	Power Input	SH/H/L	W	328 / 266 / 144	463 / 370 / 208	660 / 530 / 290	926 / 740 / 420
Bypass Mode	Air Flow	SH/H/L	m³/h	800 / 800/ 660	1,000 / 1,000 / 800	1,500 / 1,500 / 1,200	2,000 / 2,000 / 1,600
	External Static Pressure	SH/H/L	Pa	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50
	Sound Pressure Level	SH/H/L	dB(A)	41 / 37 / 33	41 / 38 / 34	44 / 40 / 36	44/41/37
Duct Work		Qty	EA	4	1	4 + 2	
Duct Work		Size (Ø)	mm	Ø2	50	Ø250 +	+ Ø350
Supply Air Fan		Qty	EA	1		Ź	-
		Туре		Direct-Dri		Direct-Dri	
Exhaust Air Fan		Qty	EA	1			
		Туре		Direct-Dri		Direct-Dri	
		Qty	EA		2	4	
Filters		Туре		Cleanable fib		Cleanable fib	
		Size (W x H x D)	mm	1,148 x	6 x 245	1,148 x	6 x 245

Note:

1. ERV mode: Total Heat Recovery Ventilation mode
2. Refer to dimensional drawings.
3. Noise level:

- The operating conditions are assumed to be standard
- Sound measured at 1.5m below the center the body.
- Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment is installed.
- The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature: 26.5°C DB, 64.5% RH, Outdoor Temperature: 34.5°C DB, 75% RH
5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature: 20.5°C DB, 59.5% RH, Outdoor Temperature: 5°C DB, 65% RH
6. Temperature Exchange efficiency is tested at heating condition.

#### Accessories

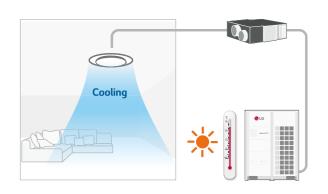
CHASSIS	LZ-H080GBA5 LZ-H100GBA5 LZ-H150GBA5 LZ-H200GBA5
Drain Pump	-
Cassette Cover	-
Refrigerant Leakage Detector	-
EEV Kit	-
Independent Power Module	-
Robot Cleaner	-
Pre Filter (Washable)	-
Ion Generator	-
CO <sub>2</sub> Sensor	0
Ventilation Kit	-
IR Receiver	-
Zone Controller	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB500 (Modbus)
External Input (1 point)	-
Wi-Fi	-

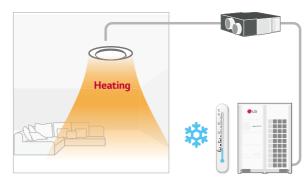
※ ○ : Applied, - : Not applied Option : Refer to model name in table

**ERV WITH DX COIL** 

# **Providing Cool & Warm Fresh Air**

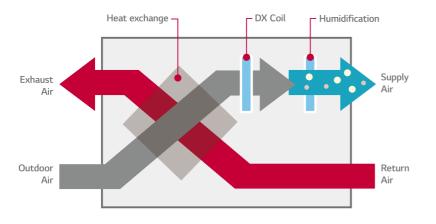
During the summer, ERV DX can transform outdoor warm air into cool air for indoors, and it can prevent cold draft during the winter by supplying warm air.





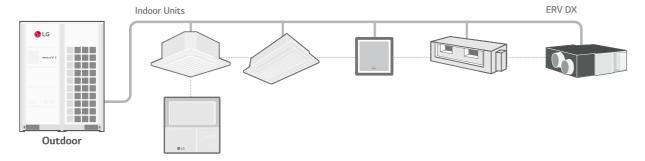
# **Total Air Conditioning Solution**

LG ERV DX can be used as a Total Air Conditioning Solution. It can control condition of incoming air with the DX coil and humidifier for making comfortable indoor air. In the summer, LG ERV DX provides air conditioning by cooling and dehumidifying incoming air. During winter, warm air is provided by heating and humidifying incoming air.



# Interlocking with MULTI V

LG ERV DX can be interlocked with MULTI V. It can be controlled individually by a wired remote controller connected to MULTI V indoor units.



LZ-H050GXH4 / LZ-H080GXH4 LZ-H100GXH4 / LZ-H050GXN4 LZ-H080GXN4 / LZ-H100GXN4



	MODEL		LZ-H050GXH4	LZ-H080GXH4	LZ-H100GXH4	LZ-H050GXN4	LZ-H080GXN4	LZ-H100GXN4
Fresh Air	Cooling	kW	4.93	7.46	9.12	4.93	7.46	9.12
Conditioning Load	Heating	kW	6.73	9.80	11.72	6.73	9.80	11.72
Temperature Exchange Efficiency	SH/H/L	%	86 / 86 / 87	80 / 80 / 81	76 / 76 / 78	86 / 86 / 87	80 / 80 / 81	76 / 76 / 78
Enthalpy Exchange	Cooling (SH / H / L)	%	61 / 61 / 63	50 / 50 / 53	45 / 45 / 50	61 / 61 / 63	50 / 50 / 53	45 / 45 / 50
Efficiency	Heating (SH / H / L)	%	76 / 76 / 77	67 / 67 / 69	64 / 64 / 66	76 / 76 / 77	67 / 67 / 69	64 / 64 / 66
Operation Range	Outdoor air Temperature	°C	-15 ~ 45	-15 ~ 45	-15 ~ 45	-15 ~ 45	-15 ~ 45	-15 ~ 45
Air Flow Rate	Heat Exchange Mode (SH / H / L)	CMH	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820
All I low hate	Bypass Mode (SH / H / L)	CMH	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820
Fan	External Static Pressure (SH / H / L)	Pa	160 / 120 / 100	140 / 90 / 70	110 / 70 / 60	180 / 150 / 110	170 / 120 / 80	150 / 100 / 70
	System		Na	tural Evaporating Ty	rpe		-	
Humidifier	Amount	kg/h	2.70	4.00	5.40		-	
	Pressure Feed Water	Mpa		0.02 ~ 0.49			-	
Sound Pressure	Heat Exchange Mode (SH / H / L)	dB(A)	38 / 36 / 33	39 / 37 / 34	40 / 38 / 35	39 / 37 / 35	41 / 38 / 36	41 / 39 / 36
	Bypass Mode (SH / H / L)	dB(A)	39 / 37 / 34	40 / 38 / 35	40 / 38 / 35	39 / 37 / 35	41 / 38 / 36	41 / 39 / 36
Refrigerant					R4	10A		
Power Supply		Ø, V, Hz			1, 220-2	40, 50,60		
Power Input (Nominal)	Heat Exchange Mode (SH / H / L)	kW					0.42 / 0.35 / 0.25	
(Ivorilliat)	Bypass Mode (SH / H / L)	kW	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25	0.48 / 0.42 / 0.27	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25	0.48 / 0.42 / 0.27
Nominal Running Current (RLA)	Heat Exchange Mode (SH / H / L)	А	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3
Current (KLA)	Bypass Mode (SH / H / L)	Α	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3
Heat Exchange System			Air to air cross flow total heat (Sensible + Latent heat) exchange			Air to air cross flow total heat (Sensible + Latent heat) exchange		
Heat Exchange Element			Specially p	rocessed non-flamm	nable paper	Specially p	rocessed non-flamm	nable paper
Air Filter				directional fibrous fl			idirectional fibrous fl	
Dimensions	WxHxD	mm	1	1,667 x 365 x 1,140	)		1,667 x 365 x 1,140	)
Net Weight		kg		105			98	
	Liquid	mm		Ø6.35			Ø6.35	
Piping	Gas	mm		Ø12.7		Ø12.7		
Connection	Water	mm		Ø6.35			-	
	Drain Pipe (Internal Dia.)	mm (inch)		Ø25 (1)			Ø25 (1)	
Connection Duct Diamet	ter	mm		Ø250			Ø250	

- Note:

  1. Cooling Capacity Test condition Indoor temperature: 27°C DB, 19°C WB / Outdoor temperature: 35°C DB

  2. Heating Capacity Test condition Indoor temperature: 20°C DB / Outdoor temperature: 7°C DB, 6°C WB

  3. Humidifying capacity is based on the following conditions Indoor temperature: 20°C DB, 15°C WB / Outdoor temperature: 7°C DB, 6°C WB

  4. Cooling and heating capacities are based on the following conditions: Fan is based on High and Super-high.

  5. The operating sound measured at the point 1.5 m below the center of the unit is converted to that measured at an anechoic chamber.

  6. The specifications, designs and information here are subject to change without notice.

#### Accessories

/ (cccssories	
CHASSIS	LZ-H050GXH4 LZ-H080GXH4 LZ-H100GXH4 LZ-H050GXN4 LZ-H080GXN4 LZ-H100GXN4
Drain Pump	<u>-</u>
Cassette Cover	·
Refrigerant Leakage Detector	PRLDNVS0
EEV Kit	-
Independent Power Module	
Robot Cleaner	·
Pre Filter (Washable)	-
Ion Generator	-
CO <sub>2</sub> Sensor	AHCS100H0
Ventilation Kit	-
IR Receiver	-
Zone Controller	·
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB500 (Modbus)
External Input (1 point)	0
Wi-Fi	-

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# 214-243 CHILLER

INVERTER SCROLL CHILLER / FCU



#### **INVERTER SCROLL CHILLER**

Capacity (	kW)	65	74	114	130	148	171	195	222
`18 Heat Pump Model (ACHH *** LBAB)					24.6		A	1	
Capacity (Kw)	Cooling	65	74	114	130	148	171	195	222
capacity (KW)	Heating	70.3	82	120	140.6	164	180	210.9	246
Range of Unit Control			by A Up to 1,110	O kW (5 CHILI C Smart Coni O kW (5 CHILI VII Touch cont	LERS) rroller	Up to 2,220	ontroller ACP, A kW (10 CHILL d Control Plati	ERS)	ller are option.

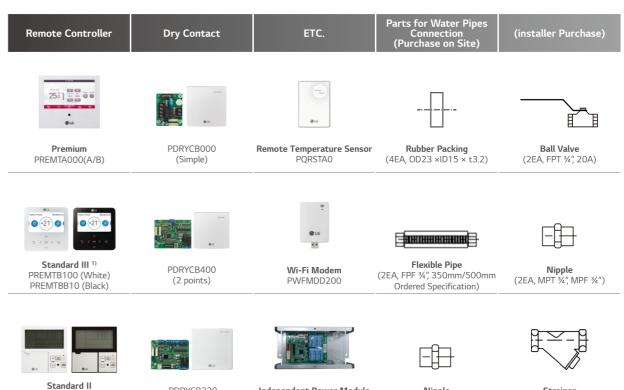
# **FCU**

LINE-UP

		(kW)* (kBtu/h)	1.8	<b>2.7</b> 9k	3.2	<b>4.1</b> 14k	<b>6</b> 20k	<b>7.2</b> 24k	<b>9</b>	10.5	13
	4 Way Cassette		6k ●	9k ●	11k	● 14K	<b>2</b> 0k ●		30k •	36k ●	44k •
Ceiling Mounted Cassette	Body Size (W×H×	CD, mm)	570 × 214 × 570		570 × 256 × 570	840 × 20	840 × 204 × 840 840 × 246 × 840			340	
	Front Panel		PT-UQC		PT-QCHW0 U-Style)			PT:	-имс	j	

		(kW)* (kBtu/h)	<b>1.5</b> 4k	<b>1.8</b> 6k	<b>2.5</b> 9k	<b>3.2</b> 11k	<b>3.9</b> 13k	<b>5.5</b> 17k	<b>6.6</b> 22k
Ceiling Mounted	Low ESP Duct		•	•	•	•	•	•	•
Duct	Body Size (W×H	×D, mm)	700 × 19	90 × 700	900 × 19	90 × 700	1,	100 × 190 × 70	00

#### **ACCESSORIES & PARTS FOR WATER PIPES CONNECTION**





PREMTB001 (White)

PREMTBB01 (Black)

PQRCVCL0Q(W)
PQRCHCA0Q(W) (for Hotel)



Wireless Remote Controller PWLSSB21H/C (Heat Pump/Cooling Only)



Independent Power Module

PRIP0

PDRYCB320

(for Thermostat)

Group Control Wire PZCWRCG3



Nipple (2EA, MPT ¾", MPF ¾")

2Way Valve (On/Off, 2-wires or 3wires)



Water Pipe (2EA, 20A, Copper or Stainless Tube)

(1EA, FPF ¾", #30)



2-Remo. Control Wire PZCWRC2



Valve insulation Material (1EA)



**Extension Wire** PZCWRC1



Drain Hose 3) (1EA, 5m)

216 I 217

 <sup>※</sup> All lineups are for 2 pipes type only.
 \* Based on Cooling Capacity. Cooling Capacity testing condition: Inlet/Outlet Water Temperature 7°C / 12°C, Indoor Air Temperature 27°CDB / 19°CWB

It could not be operated some functions.
 The dry contact for Modbus is built-in to the FCU as default.
 Included with installation parts



INVERTER SCROLL CHILLER

WHY LG INVERTER

**SCROLL CHILLER** 

# **ULTIMATE INVERTER COMPRESSOR**

As the core technology of the air conditioning system, the Ultimate Inverter Compressor of MULTI V 5 boasts its ultimate efficiency and durability, designed based on the unique technology and innovation of LG HVAC.

#### All Inverter

Provide high efficiency with low vibration and low noise

#### Six By-pass Valves

Prevent compressor damage due to excessively compressed refrigerant more efficiently than 4 by-pass valves

#### 01. Vapor Injection

Wide operating range via two-stage compression

#### 02. Enhanced Bearing with PEEK Material

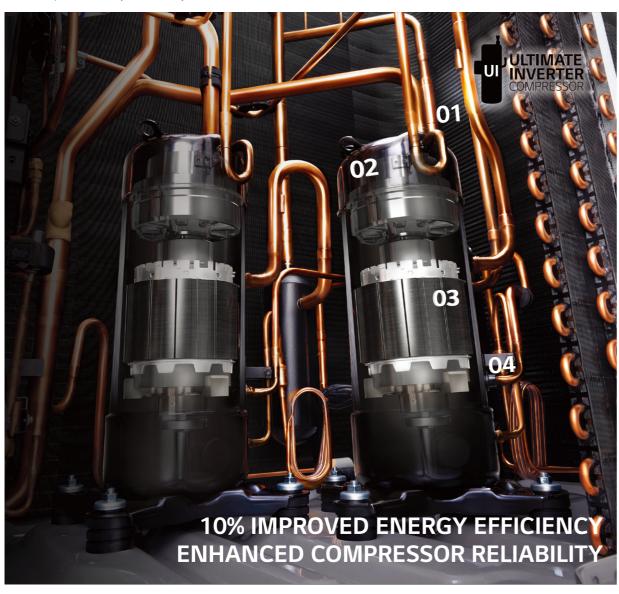
Newly invented system motivated by PEEK (Polyetheretherketone) bearing used for aero engine to increase operation range and durability

#### 03. Wide Operation Range from 30 to 130 Hz

Improved part load efficiency at all operation ranges

#### 04. HiPOR™ (High Pressure Oil Return)

Resolve compressor efficiency loss caused by oil return



# **Smart Farm**



# **Small Industry (Process Water)**



# **Hotel / Office**



WHY LG INVERTER SCROLL CHILLER

# **All Inverter Scroll Compressor**

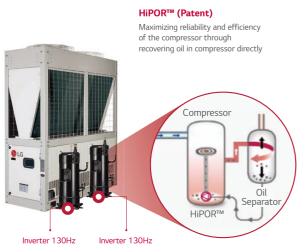
All inverter scroll compressor with HiPOR™ (Patent) is applied to improve full load and part load energy efficiency.

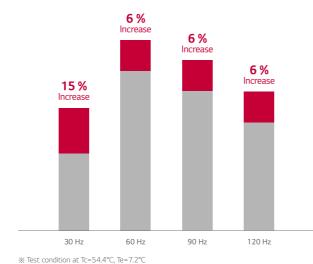
#### All Inverter System

#### Wide operation frequency range 30 ~ 130Hz

#### **Compressor Efficiency**

Compressor efficiency by Hz is increased through HiPOR™ application

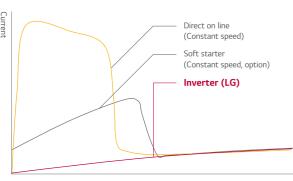




# App. Inverter Comp. vs Constant Speed Comp.

Inverter compressor is more stable and efficient solution than Constant speed compressor.

#### Comparison of starting type



Elapsed time

Compressor	Starting type	Starting current (Is / FLA*, %)			
Constant	Direct on line	About 650 %			
speed	Soft starter	200 ~ 350 %			
Inverter (LG)	Inverter	No inrush current			

<sup>\*</sup> FLA : Full load ampere

#### Inverter's feature & benefits

vvnen starting	
Reduce starting torque below full load torque  → Mechanical wear↓	
Decrease starting current under FLA <b>→ Circuit breaker capacity</b> ↓	
When operating	
Low electric loss due to high value of the power factor**  → Energy efficient	
Low power input in part load	

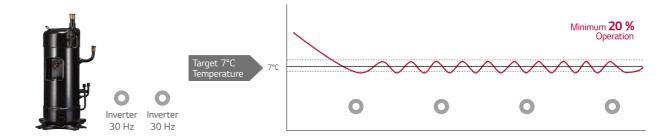
Continuously adjust compressor output according to the load (Compressor 15~125Hz)

⇒ Save energy

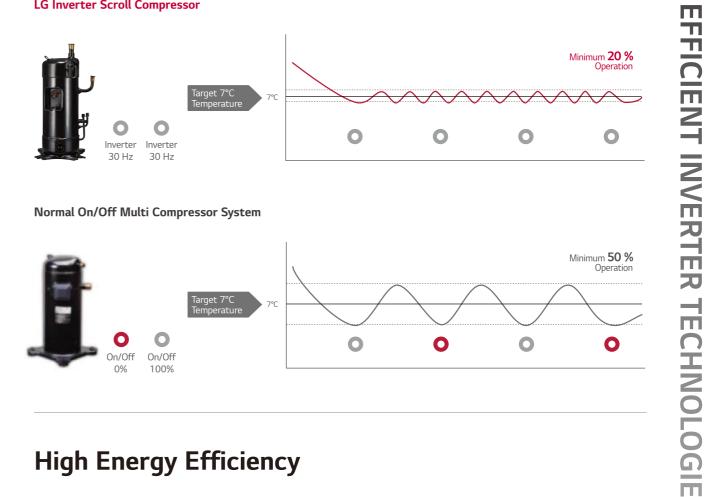
# **Lower Load Operation**

20% part load operation and minimized water outlet temperature haunting with Inverter scroll compressor.

#### **LG Inverter Scroll Compressor**

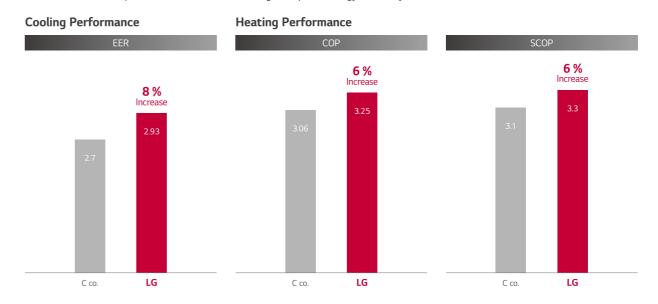


#### Normal On/Off Multi Compressor System



# **High Energy Efficiency**

All inverter scroll compressors with Multi V technologies improve energy efficiency.



% 65 kW Heat pump model comparison

INVERTER SCROLL CHILLER KEY FEATURES 222 I 223

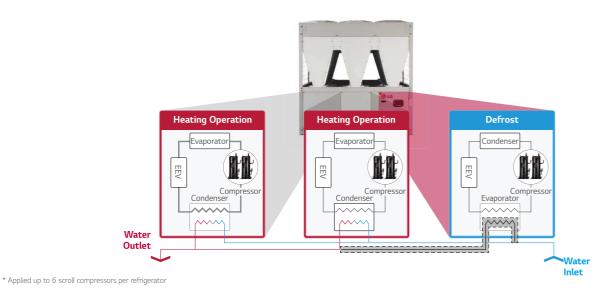
<sup>\*\*</sup> Power factor : Ratio between active power(kW) and total power(kVA)

**RELIABILITY &** 

# **Continuous Heating Operation**

Continuous heating minimizes the decrease of water outlet temperature during defrosting for multi circuit model.

Multi cycle can defrost each cycle individually to supply hot water continuously multi cycle.



# **Back Up Operation**

If one compressor or one cycle needs to be repaired, backup operation helps the whole system to operate continuously.

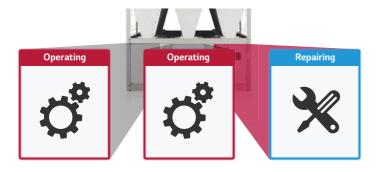
#### All Inverter System





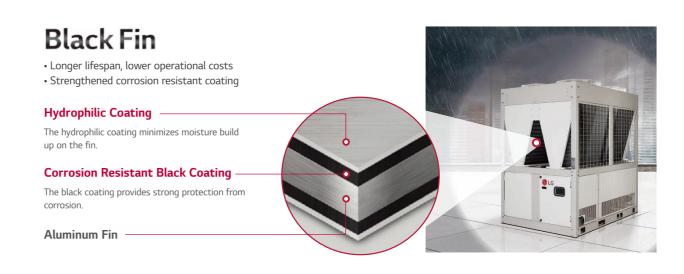


#### Cycle back up



# **Corrosion Resistance (Black Fin)**

'Black Fin' heat exchanger is highly corrosion resistant, designed to perform in corrosive environments such as contaminated and humid condition.



# **Black Box Function**

Quick service can be done because operation data can be saved for 180 seconds before system failure.



Check many failure causes and error codes in person



ke much service time and undergo trial and error

#### With Black Box Function

Search for the failure cause conveniently using recorded data



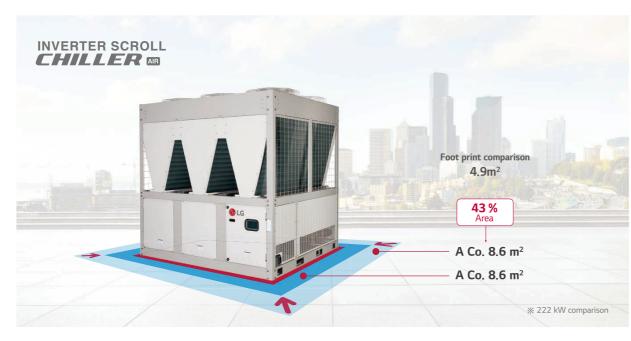
Save service time and diagnose it more accurately



INVERTER SCROLL CHILLER KEY FEATURES

# **Compact Size**

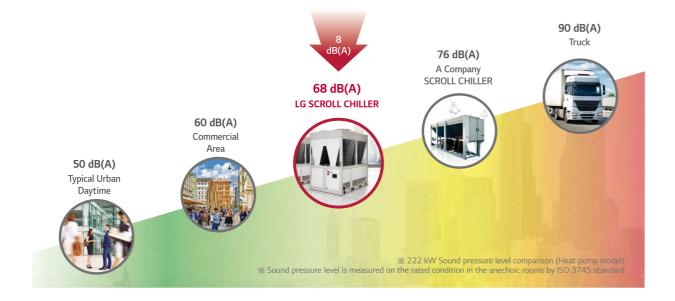
Compact size reduces concern about installation and service space.



# **Low Noise Level**

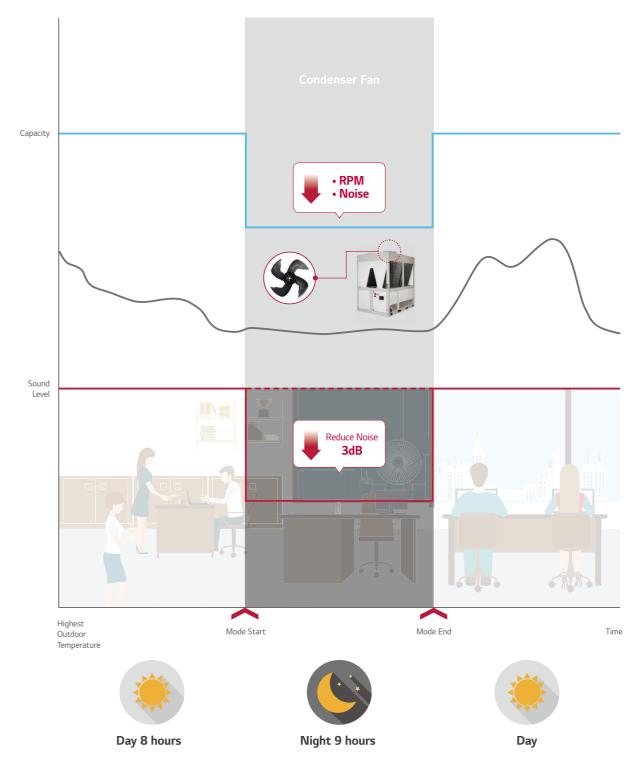
Lower noise can reduce noise pollution and provide a quieter environment.

**Noise Comparison** 



# **Silent Operation Function (Cooling Mode)**

Silent operation function can reduce noise levels at night time by adjusting the fan RPM.



INVERTER SCROLL CHILLER KEY FEATURES

#### ACHH020LBAB / ACHH023LBAB ACHH033LBAB / ACHH040LBAB







LG participates in the ECP programme for EUROVENT VRF program.
Check ongoing validity of certification

#### Heat pump model

INIVEDTED SCROLL S	UILLED		ACHH020LBAB	ACHH023LBAB	ACHH033LBAB	ACHH040LBAB
INVERTER SCROLL C	HILLEK		H/P	H/P	H/P	H/P
Power		Phase,Lines,V	3,4,380~415	3,4,380~415	3,4,380~415	3,4,380~415
	0 "	kW	65	74	114	130
	Cooling	RT	18.5	21	32.4	37
Capacity		kW	70.3	82	120	140.6
	Heating	RT	20	23	34	40
	Cooling	kW	22.2	27.4	36.8	44.4
Input Power	Heating	kW	21.6	27.3	35.3	43.3
Max operating Current	,	Α	39	48	72	78
Efficiency	Cooling	W/W	2.93	2.70	3.10	2.93
	Heating	W/W	3.25	3.00	3.40	3.25
SEER	ricating	W/W	4.40	4.20	4.50	4.40
SCOP		W/W	3.30	3.30	3.30	3.30
Sound Pressure		dBA	67	68	68	68
Journa i ressure	Cooling	dDA .	86	87	87	90
Sound power		dBA	86	87	88	90
	Heating	-				
	Type		Scroll 2	Scroll 2	Scroll 4	Scroll
C	No. of Compressor	EA	PVE		4 PVE	4
Compressor	Oil Type	-		PVE		PVE
	Oil charge	CC	1,400 x 2	1,400 x 2	1,400 x 4	1,400 x 4
	Sump Heater	W	60 x 2	60 x 2	60 x 4	60 x 4
Refrigrant	Туре	-	R410A	R410A	R410A	R410A
	Amount of Charged	Kg	7.0 kg x 2	7.0 kg x 2	7.0 kg x 4	7.0 kg x 4
	Туре	-	plate	plate	plate	plate
	Pressure drop	kPa	21.5	28.7	18.7	21.5
Evaporator	Operating maximum pressure (Refrigrant / Water)	kg/cm²	42/10	42/10	42/10	42/10
	Standard Flow (Cooling/Heating)	LPM	186/200	211/235	327/345	372/400
	Inlet/Outlet diameter (Water pipe)	mm	50A/50A	50A/50A	65A/65A	65A/65A
	Туре	-	BLDC	BLDC	BLDC	BLDC
	No. of Fan	EA	2	2	4	4
Fan motor	No. of Vanes	EA	4	4	4	4
	Air Flow Rate	CMM	210 x 2 @1,000 rpm	210 x 2 @1,000 rpm	210 x 4 @1,000 rpm	210 x 4 @1,000 rp
	Motor power	W	900 x 2	900 x 2	900 x 4	900 x 4
Expansion unit		-	EEV	EEV	EEV	EEV
Weight		kg	520	520	970	970
	W	mm	765	765	1,528	1,528
Dimension	Н	mm	2,293	2,293	2,293	2,293
	D	mm	2,154	2,154	2,154	2,154
Footprint		m <sup>2</sup> /RT	0.089	0.078	0.102	0.089
	High/Low Pressure	-	•			
Protection Devices	Anti Frost	-				
Remote Control		-	Modbus	Modbus	Modbus	Modbus
Power	Power Line	mm <sup>2</sup>	25.0mm <sup>2</sup> x 5C	25.0mm <sup>2</sup> x 5C	50.0mm <sup>2</sup> x 5C	50.0mm <sup>2</sup> x 5C
	Cooling	°C	5~20	5~20	5~20	5~20
Outlet Temperature	Heating	°C	30~55	30~55	30~55	30~55
	Cooling	°C	-15~48	-15~48	-15~48	-15~48
Ambient Temperature	Heating	°C	-30~35	-30~35	-30~35	-30~35

Notes:

1. Due to our policy of innovation some specifications may be changed without prior notification.

2. Capacities and Inputs are based on the following conditions
Cooling: Outdoor air temp. 35°C, Water inlet temp. 12°C, Water Outlet temp. 7°C
Heating: Outdoor air temp. 7°C, Water inlet temp. 40°C, Water Outlet temp. 45°C

3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Sound power level is measured ISO 9614:2009 by sound intensity method. Therefore, these values can be increased owing to ambient conditions during operation.

#### ACHH045LBAB / ACHH050LBAB ACHH060LBAB / ACHH067LBAB







LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification INVERTER

**SCROLL CHILLER** 

#### Heat pump model

INVERTER SCROLL CHILLER			ACHH045LBAB	ACHH050LBAB	ACHH060LBAB	ACHH067LBAB
INVERTER SCROEL C	IIILLEN		H/P	H/P	H/P	H/P
Power		Phase,Lines,V	3,4,380~415	3,4,380~415	3,4,380~415	3,4,380~415
	Cooling	kW	148	171	195	222
Capacity	Cooling	RT	42.1	48.6	55.4	63.1
Capacity	Heating	kW	164	180	210.9	246
	rieating	RT	47	51	60	70
Input Power	Cooling	kW	54.8	55.2	66.6	82.2
iliput Powei	Heating	kW	54.7	52.9	64.9	82
Max operating Current		А	96	108	117	144
Efficiency	Cooling	W/W	2.70	3.10	2.93	2.70
	Heating	W/W	3.00	3.40	3.25	3.00
SEER		W/W	4.20	4.50	4.40	4.20
SCOP		W/W	3.30	3.30	3.30	3.30
Sound Pressure		dBA	68	68	68	68
S1	Cooling	-IDA	91	88	91	92
Sound power	Heating	dBA	91	88	91	92
	Туре	-	Scroll	Scroll	Scroll	Scroll
	No. of Compressor	EA	4	6	6	6
Compressor	Oil Type	-	PVE	PVE	PVE	PVE
	Oil charge	СС	1,400 x 4	1,400 x 6	1,400 x 6	1,400 x 6
	Sump Heater	W	60 x 4	60 x 6	60 x 6	60 x 6
	Туре	-	R410A	R410A	R410A	R410A
Refrigrant	Amount of Charged	Kg	7.0 kg x 4	7.0 kg x 6	7.0 kg x 6	7.0 kg x 6
	Туре	-	plate	plate	plate	plate
	Pressure drop	kPa	28.7	18.7	21.5	28.7
Evaporator	Operating maximum pressure (Refrigrant / Water)	kg/cm²	42/10	42/10	42/10	42/10
	Standard Flow (Cooling/Heating)	LPM	411/470	490/518	558/600	633/705
	Inlet/Outlet diameter (Water pipe)	mm	65A/65A	65A/65A	65A/65A	65A/65A
	Туре	-	BLDC	BLDC	BLDC	BLDC
	No. of Fan	EA	4	6	6	6
Fan motor	No. of Vanes	EA	4	4	4	4
	Air Flow Rate	CMM	210 x 4 @1,000 rpm	210 x 6 @1,000 rpm	210 x 6 @1,000 rpm	210 x 6 @1,000 rp
	Motor power	W	900 x 4	900 x 6	900 x 6	900 x 6
Expansion unit		-	EEV	EEV	EEV	EEV
Weight		kg	970	1,430	1,430	1,430
	W	mm	1,528	2,291	2,291	2,291
Dimension	Н	mm	2,293	2,293	2,293	2,293
	D	mm	2,154	2,154	2,154	2,154
Footprint		m <sup>2</sup> /RT	0.078	0.101	0.089	0.078
Protection Devices	High/Low Pressure	-	•	•	•	•
Frotection Devices	Anti Frost	-	•	•	•	•
Remote Control		-	Modbus	Modbus	Modbus	Modbus
Power	Power Line	mm²	50.0mm <sup>2</sup> x 5C	95.0mm <sup>2</sup> × 5C	95.0mm <sup>2</sup> × 5C	95.0mm <sup>2</sup> × 5C
0.41.7	Cooling	°C	5~20	5~20	5~20	5~20
Outlet Temperature	Heating	°C	30~55	30~55	30~55	30~55
	Cooling	°C	-15~48	-15~48	-15~48	-15~48
Ambient Temperature	Heating	°C	-30~35	-30~35	-30~35	-30~35
Earth Leakage Breaker	,	A	125	200	200	200

Notes:

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Cooling: Outdoor air temp. 35°C, Water inlet temp. 12°C, Water Outlet temp. 7°C
Heating: Outdoor air temp. 7°C, Water inlet temp. 40°C, Water Outlet temp. 45°C

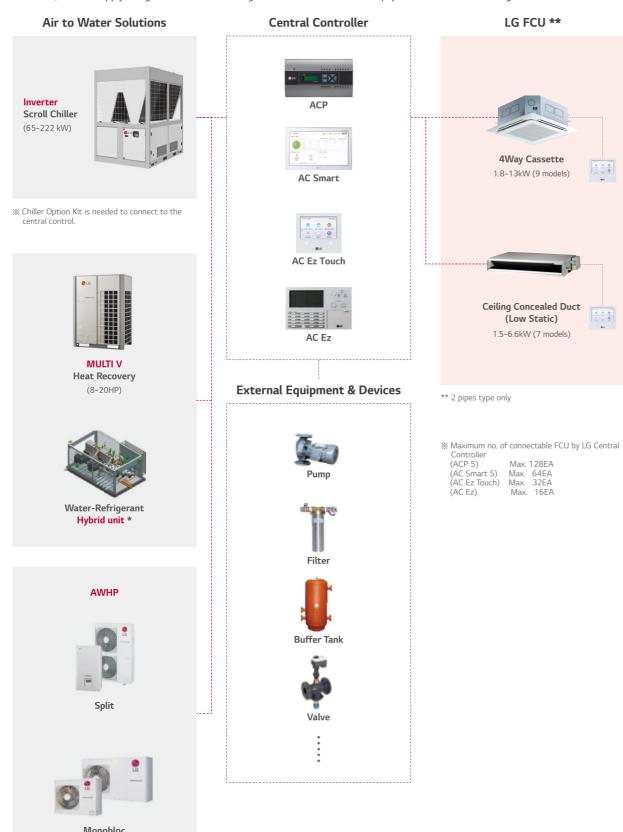
3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Sound power level is measured ISO 9614:2009 by sound intensity method. Therefore, these values can be increased owing to ambient conditions during operation.

INVERTER SCROLL CHILLER SPECIFICATIONS



# Fan Coil Unit

FCU can be applied to various solutions using water. It allows not only to control equipment individually by using the remote controller, but also apply integrated control including control of some external equipment and devices through the central controller.



<sup>\*</sup> To be released in the 1st half of 2020

# **Interlocking Control**

It allows Interlocking control between FCU and Inverter Scroll Chiller(ISC) by using LG central controller such as ACP, ACS. When FCU is being turned on/off, ISC turns on/off automatically by LG central controller.

#### What are the benefits?

The Total Cost(Equipment + installation + BMS) is greatly reduced. It eliminated the hassle of turning on the ISC first.

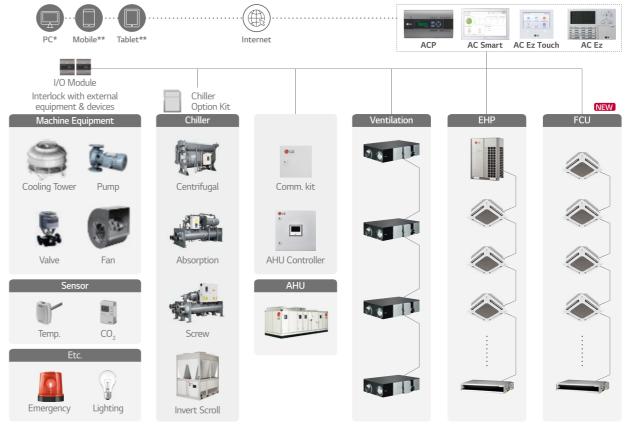


# **Central Controller**

LG's central controller allows control of various external equipment and devices in addition to LG's equipment. (FCU, Chiller, EHP, etc.)

#### What are the benefits?

Integrated control of the system can be realized conveniently through the LG central controller. (FCU + Chiller + EHP + ··· + External Equipment & Devices)

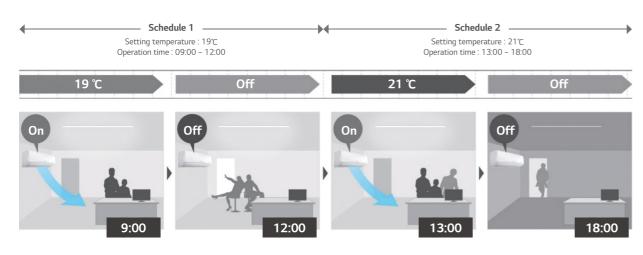


<sup>\*</sup> Unable to link AC Ez \*\* Unable to link AC Ez, AC Ez Touch

WHY LG FCU 232 | 233

# **Scheduled Operation**

You can set 2 schedules for one day, and up to 14 schedules for a week.



<sup>%</sup> This function is for wired remote controller only.% Wired remote controller is need to be separately purchased.

# **Group Control with One Remote Controller**

Up to 16 FCU's can be controlled with one wired remote controller. It can reduce installation costs and keep the wall interior clean.



\* If you set up to 'Installation Setting' > Group Control 'Enabled' in your Wired Remote Controller, you can use many more functions.

# **Easy Control**

(Simple Test Run via LGMV)

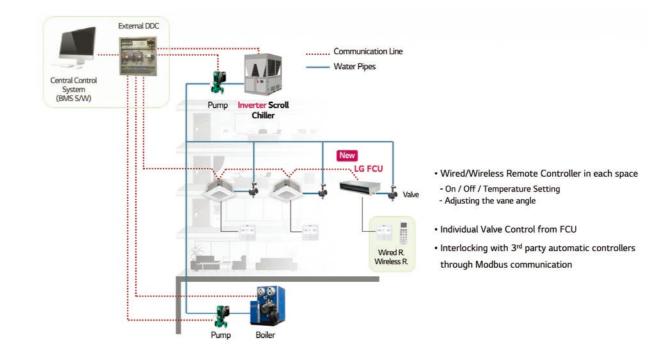
LG MV (Monitoring View) helps engineers to inspect and monitor LG's air conditioning unit easily.



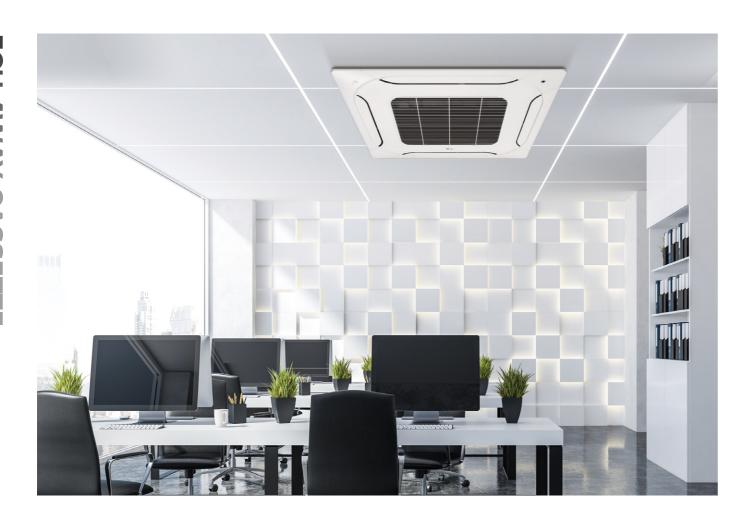
<sup>%</sup> Search "Mobile LGMV" on Google market or App store then download the app. % Wi-Fi modem (PWFMDD200) is required by option.

# **Individual Control & External Central Control**

It allows not only to control each room by using the remote controller, but also apply integrated control through a 3<sup>rd</sup> party central controller.



FCU KEY FEATURES



# Wi-Fi Remote Control

Control your air conditioners using the smart devices as Android or iOS based smartphones and voice commands via Google assistant.





% Search "LG ThinQ" on Google market or App store then download the app \* Wi-Fi modem (PWFMDD200) is required by option.

#### Access your air conditioner anytime and from anywhere

Operation under the revised weather conditions before changing conditions impact indoor comfort.



#### Simple operation for various functions

• On/Off \*\*

• Mode Selection \*\*

- Set temperature \*\*
- Set fan speed \*\*
- Current temperature \*\* Vane Control
- Smart Diagnosis

• Energy Monitoring

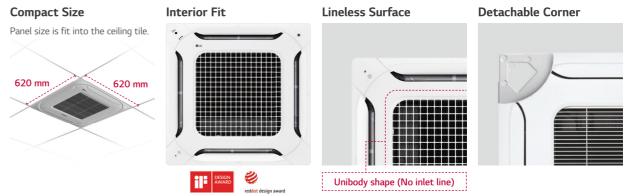
• Filter Management

- \*\* This functions are used by Google assistant & Amazon Alexa % In some countries, the use of the Google assistant & Amazon Alexa system may be restricted.

# Stylish Design Panel

(U-style 4Way cassette)

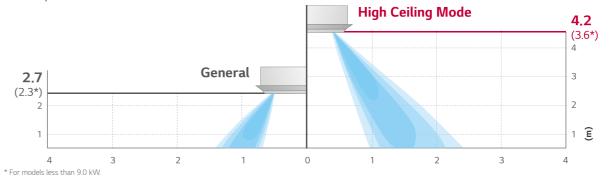
New 4 way cassette panel adapted a unibody shape and fits into the ceiling cell size.



 $\ \%$  U-Style panel corresponds to the PT-QCHW0 panel for WF4A018 / 027 / 032 / 041CG0A models

# **High Ceiling Mode**

Airflow in a space with a 4.2m ceiling height is possible with this indoor unit. Furthermore, air flow can be strengthened by adjusting the fan speed.



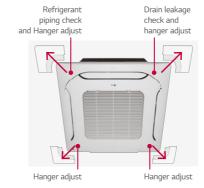
# **Convenient Panel Installation**

The detachable corner design makes it easy to adjust the hanger during installation and helps to easily check leakages in the drain connection pipe. Moreover, button type holder design makes it is easy to install the panel to the body.

Drain Leakage Check

Hanger Adjust

#### **Detachable Corner Design**



\* The detachable corner design is only applicable to the U-Style panel.

#### One Push Panel



FCU KEY FEATURES

#### WF4A018CG0A / WF4A027CG0A WF4A032CG0A / WF4A041CG0A WF4A060CG0A



INDOOR				WF4A018CG0A	WF4A027CG0A	WF4A032CG0A	WF4A041CG0A	WF4A060CG0A
Power Supply			Ø, V, Hz	1, 220-230-240, 50/60				
Running Current b	y Voltage		А	0.37-0.37-0.37	0.38-0.38-0.38	0.40-0.40-0.40	0.35-0.42-0.42	0.62-0.69-0.69
		Condition A		1.8 (1,548)	2.7 (2,322)	3.2 (2,752)	4.1 (3,525)	6.0 (5,159)
	Carlina	Condition B	1344/11./1.	1.2 (1,032)	1.8 (1,548)	2.2 (1,892)	2.8 (2,408)	4.0 (3,439)
	Cooling	Condition C	kW (kcal / h)	1.5 (1,290)	2.3 (1,978)	2.8 (2,408)	3.6 (3,095)	4.9 (4,213)
Capacity		Condition D		0.7 (602)	1.2 (1,032)	1.4 (1,204)	1.8 (1,548)	2.5 (2,150)
		Condition A		1.9 (1,634)	2.7 (2,322)	3.3 (2,837)	4.5 (3,869)	7.2 (6,191)
	Heating	Condition B	kW (kcal / h)	2.2 (1,892)	3.1 (2,666)	3.9 (3,353)	5.4 (4,643)	8.5 (7,309)
		Condition A		5.7	8.2	10.0	13.5	19.0
		Condition B		4.6	6.6	8.0	10.8	14.4
	Cooling	Condition C	LPM	5.7	8.2	10.0	13.5	19.0
Water Flow Rate		Condition D		3.4	4.9	6.0	8.1	12.1
		Condition A		6.1	8.6	10.0	13.5	22.5
	Heating	Condition B	LPM	5.7	8.2	10.0	13.5	19.0
		Condition A		21.5	32.0	47.7	43.7	38.2
		Condition B		13.7	20.3	30.3	27.8	23.6
	Cooling	Condition C	kPa	21.5	32.0	47.7	43.7	38.2
Head Loss		Condition D		8.1	12.0	17.9	16.4	17.0
		Condition A		30.3	40.7	53.8	56.5	57.2
	Heating	Condition B	kPa	26.2	36.5	53.8	56.5	42.1
Power Input	Nominal	Condition B	W	12	15	20	43	73
Running Current	Nominal		A	0.37	0.38	0.40	0.42	0.69
running current	Туре		-	Turbo Fan				
Fan		te (H / M / I )	m³/min	6.5 / 5.5 / 5.0	7.0 / 6.5 / 6.0	8.5 / 8.0 / 7.0	12.0 / 10.0 / 8.0	19.0 / 17.0 / 15.0
	Air Flow Rate (H / M / L) Type		-	BLDC	BLDC	BLDC	BLDC	BLDC
	Drive			CCW	CCW	CCW	CCW	CCW
Fan Motor	Output		W x No.	30 x 1	30 x 1	30 x 1	43 x 1	40 x 1
	FLA (Full Lo	ad Ampere)	Α Α	0.37	0.38	0.40	0.42	0.69
Dimensions	Net (W x H		mm	570 x 214 x 570	570 x 214 x 570	570 x 214 x 570	570 x 256 x 570	840 x 204 x 840
Weight	Net	<i>, ,</i>	kg	12.9	12.9	12.9	14.0	20.8
Weight	Shipping		kg	15.7	15.7	15.7	16.3	24.9
Air Filter	Туре		-	-	-	-	-	-
Temperature Cont					Microprocessor	Thermostat for coo	ling and heating	
Sound Absorbing /		ulation Material		Foamed polystrene		Foamed polystrene		Foamed polystrene
Protection Device	THEITHAL IIIS	utation waterial		Fuse	Fuse	Fuse	Fuse	Fuse
	Inlet			BSPF G 3/4" (male)				
Water Connecting Pipes			_	BSPF G 3/4" (male)				
	Cooling (H /	'M / I )	dB (A)	35 / 34 / 33	38 / 37 / 35	43 / 40 / 38	48 / 43 / 38	48 / 46 / 42
Sound Pressure Level	Heating (H /		dB (A)	35 / 34 / 33	38 / 37 / 35	43 / 40 / 38	48 / 43 / 38	48 / 46 / 42
	Cooling (H /		dB (A)	40 / 39 / 38	44 / 42 / 40	50 / 46 / 44	56 / 50 / 45	55 / 53 / 49
Sound Power Level	Heating (H /		dB (A)	40 / 39 / 38	44 / 42 / 40	50 / 46 / 44	56 / 50 / 45	55 / 53 / 49
Connecting Cable	Communicati (VCTF-SB)		mm² x cores	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5
	Name		-	PT-QCHW0	PT-QCHW0	PT-QCHW0	PT-QCHW0	PT-MCHW0
Decoration Panel	Dimensions	(W×H×D)	mm	620 x 34 x 620	950 x 35 x 950			
#1 (Accessory)	Color	, , , , , ,	-	Morning fog				
,	RAL Code		_	120-4	120-4	120-4	120-4	120-4
	Name		_	-	-	-	-	-
December Dec		(W x H x D)	mm	_	_	_	_	-
Decoration Panel #2 (Accessory)	Color	(VVXIIXD)	-	-	-	_	-	-
,,,	RAL Code			_	_	_	_	_
	NAL COUR			-	_		-	

#### WF4A072CG0A / WF4A090CG0A WF4A105CG0A / WF4A130CG0A



INDOOR				WF4A072CG0A	WF4A090CG0A	WF4A105CG0A	WF4A130CG0A		
Power Supply			Ø, V, Hz	1, 220-230-240, 50/60	1, 220-230-240, 50/60	1, 220-230-240, 50/60	1, 220-230-240, 50/60		
Running Current b	y Voltage		А	0.75-0.88-0.88	0.89-0.89-0.89	1.4-1.39-1.39	1.7-1.88-1.88		
		Condition A		7.2 (6,191)	9.0 (7,739)	10.5 (9,028)	13.0 (11,178)		
	Cooling	Condition B	IAM (Ireal / b)	4.8 (4,127)	6.0 (5,159)	7.0 (6,019)	8.7 (7,481)		
C	Cooling	Condition C	kW (kcal / h)	5.8 (4,987)	7.3 (6,277)	8.5 (7,309)	10.5 (9,028)		
Capacity		Condition D		2.9 (2,494)	3.7 (3,181)	4.3 (3,697)	5.3 (4,557)		
	Hartina	Condition A	134//1 / 1->	7.9 (6,793)	9.7 (8,340)	11.1 (9,544)	13.3 (11,436)		
	Heating	Condition B	kW (kcal / h)	9.3 (7,997)	11.5 (9,888)	13.4 (11,522)	15.7 (13,500)		
		Condition A		21.0	28.0	33.0	37.8		
		Condition B		15.9	21.2	25.0	28.6		
	Cooling	Condition C	LPM	21.0	28.0	33.0	37.8		
Water Flow Rate		Condition D		13.4	17.8	21.0	24.1		
		Condition A		24.5	28.0	33.0	39.1		
	Heating	Condition B	LPM	21.0	28.0	33.0	37.8		
		Condition A		45.9	56.3	80.4	68.2		
		Condition B		28.4	31.5	44.0	38.9		
	Cooling	Condition C	kPa	45.9	56.3	80.4	68.2		
Head Loss		Condition D		20.4	23.5	31.3	26.4		
		Condition A		67.6	48.9	68.3	71.7		
	Heating	Condition B	kPa	49.6	48.9	68.3	68.3		
Dower Input	Nominal	Condition b	W	93	103	167	246		
Power Input	Nominal		A	0.88	0.89	1.39	1.88		
Running Current	Nominal		А	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan		
an	Type	(11 / 11 / 11 / 11 )	- 3/				41.0 / 36.0 / 30.0		
		ate (H / M / L)	m³/min	21.0 / 19.0 / 17.0	25.0 / 21.0 / 19.0	31.0 / 28.0 / 25.0			
	Туре		-	BLDC	BLDC	BLDC	BLDC		
Fan Motor	Drive		-	CCW	CCW	CCW	CCW		
	Output		W x No.	40 x 1	156 x 1	156 x 1	136 x 1		
		oad Ampere)	Α	0.88	0.89	1.39	1.88		
Dimensions	Net (W x F	1 x D)	mm	840 x 204 x 840	840 x 246 x 840	840 x 246 x 840	840 x 288 x 840		
Weight	Net		kg	20.8	23.2	23.2	25.1		
	Shipping		kg	24.9	27.5	27.5	29.7		
Air Filter	Туре		-	-	-	-	-		
Temperature Cont			-	Microprocessor, Thermostat for cooling and heating					
Sound Absorbing /	Thermal In:	sulation Material	-	Foamed polystrene	Foamed polystrene	Foamed polystrene	Foamed polystren		
Protection Device			-	Fuse	Fuse	Fuse	Fuse		
Water	Inlet		-	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)		
Connecting Pipes	Outlet		-	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)		
Sound Pressure	Cooling (H	/ M / L)	dB (A)	51 / 48 / 46	51 / 47 / 43	55 / 53 / 51	57 / 53 / 50		
Level	Heating (H	/ M / L)	dB (A)	51 / 48 / 46	51 / 47 / 43	55 / 53 / 51	57 / 53 / 50		
Sound Power	Cooling (H	/ M / L)	dB (A)	57 / 55 / 52	59 / 54 / 51	63 / 61 / 58	65 / 61 / 57		
Level	Heating (H	/ M / L)	dB (A)	57 / 55 / 52	59 / 54 / 51	63 / 61 / 58	65 / 61 / 57		
Connecting Cable	Communica (VCTF-SB)	ation Cable	mm² x cores	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5		
	Name		-	PT-MCHW0	PT-MCHW0	PT-MCHW0	PT-MCHW0		
Decoration Panel	Dimensions	s (W x H x D)	mm	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950		
#1 (Accessory)	Color		-	Morning fog	Morning fog	Morning fog	Morning fog		
	RAL Code		-	120-4	120-4	120-4	120-4		
	Name		-	-	-	-	-		
Decoration Panel		s (W x H x D)	mm	-	-	-	-		
#2 (Accessory)	Color	, ,	-	-	-	-	-		
#2 (Accessory)									

FCU SPECIFICATIONS



# **Quiet Operation**

The noise level of Low EPS Ducts does not interfere with conversation at all.

	Unit : dB(A
	Sound Pressure (High / Medium / Low)
WFCA012RG0A	31 / 30 / 29
WFCA018RG0A	33 / 32 / 31
WFCA025RG0A	31 / 30 / 29
WFCA032RG0A	33 / 32 / 31
WFCA039RG0A	28 / 27 / 26
WFCA055RG0A	31 / 28 / 26
WFCA066RG0A	38 / 34 / 31

- \* Test condition Temperature : (Cooling) 27°C DB / 19°C WB, 35°C DB / 24°C WB
  \* Based on Low speed of WFCA039RG0A, WFCA055RG0A model
  \* Sound level may vary depending on the place or surrounding conditions in which the equipment is installed.

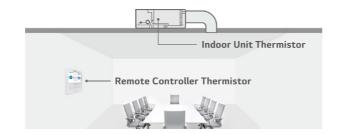
# 78dB(A)

# **Two Thermistors Control**

The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. Two thermistors can check the optimal indoor air temperature for a more comfortable environment.

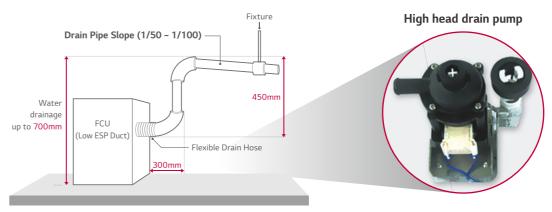
Compares temperatures sensed from different positions, and automatically selects the optimal temperature for users.

\* Need to connect the wired remote controller.



# **High Head Drain Pump**

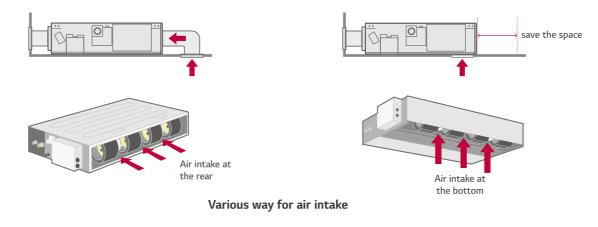
High head drain pump automatically drains water up to a height of 700mm of drain-head height.



\* All of LG's FCU's have a high head drain pump built in.

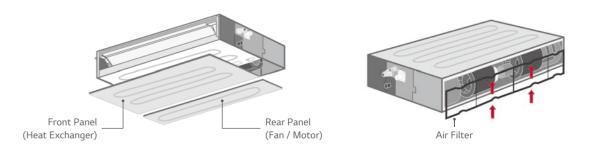
# Flexible Installation

LG's Low ESP Duct FCU allows air intake from the rear or the bottom sides according to requirements.



# **Easy Service & Maintenance**

Service engineers don't need to open the whole panel for maintenance, since the panel is divided into 2 components; one for heat exchanger and the other for fans/motor. User can easily detach and re-attach the air filter in the available limited space.



FCU KEY FEATURES 240 I 241

# WFCA012RG0A / WFCA018RG0A WFCA025RG0A / WFCA032RG0A



INDOOR				WFCA012RG0A	WFCA018RG0A	WFCA025RG0A	WFCA032RG0A
Power Supply			Ø, V, Hz	1, 220-230-240, 50	1, 220-230-240, 50	1, 220-230-240, 50	1, 220-230-240, 50
Running Current b	y Voltage		А	0.29-0.29029	0.31-0.31-0.31	0.32-0.32-0.32	0.35-0.35-0.35
		Condition A		1.3 (1,118)	1.8 (1,548)	2.5 (2,150)	3.2 (2,752)
	Cooling	Condition B	kW (kcal / h)	1.1 (946)	1.5 (1,290)	2.1 (1,806)	2.7 (2,322)
Canacity	Cooling	Condition C	KVV (KCal / II)	1.2 (1,032)	1.6 (1,376)	2.2 (1,892)	2.8 (2,408)
Capacity		Condition D		0.7 (602)	0.9 (774)	1.3 (1,118)	1.6 (1,376)
	Heating	Condition A	kW (kcal / h)	2.0 (1,721)	2.8 (2,408)	3.2 (2,752)	3.8 (3,267)
	Heating	Condition B	KVV (KCdi / 11)	2.1 (1,806)	3.0 (2,581)	3.6 (3,095)	4.4 (3,783)
		Condition A		4.0	5.6	7.4	9.3
	Cooling	Condition B	LPM	4.0	5.6	7.4	9.3
Water Flow Rate	Cooling	Condition C	LFIVI	4.0	5.6	7.4	9.3
Water How Nate		Condition D		2.7	4.0	5.0	6.3
	Heating	Condition A	LPM	6.2	8.5	9.7	11.4
	rieating	Condition B	LI IVI	4.0	5.6	7.4	9.3
		Condition A		1.2	3.3	7.6	11.8
	Cooling	Condition B	kPa	1.2	3.3	7.6	11.8
Head Loss	cooming	Condition C	Riα	1.2	3.3	7.6	11.8
ricad 2033		Condition D		0.8	2.3	5.3	8.2
	Heating	Condition A	kPa	4.4	8.5	12.5	17.8
	ricacing	Condition B	Riα	2.0	3.5	6.9	11.4
Power Input	Nominal		W	8	17	20	27
Running Current	Nominal		А	0.29	0.31	0.32	0.35
	Туре		-	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
		ate (H / M / L)	m³ / min	5.5 / 5.0 / 4.5	8.0 / 7.0 / 6.0	8.0 / 7.5 / 7.0	9.8 / 8.8 / 8.0
Fan	(Standard	External Static Pressure (Standard mode)		0	0	0	0
	External St (High mode	atic Pressure e)	mmAq	0	0	0	0
	Туре		-	BLDC	BLDC	BLDC	BLDC
Fan Motor	Drive		-	CW	CW	CW	CW
Tun Mocor	Output		W x No.	19 x 1	19 x 1	19 x 1 + 5 x 1	19 x 1 + 5 x 1
	FLA (Full Lo	oad Ampere)	А	0.29	0.31	0.32	0.35
Dimensions	Net (W x F	l x D)	mm	700 x 190 x 700	700 x 190 x 700	900 x 190 x 700	900 x 190 x 700
	Shipping (V	V x H x D)	mm	842 x 235 x 766	842 x 235 x 766	1,042 x 235 x 766	1,042 x 235 x 766
Weight	Net		kg	17.5	17.5	22.0	22.0
	Shipping		kg	21.9	21.9	26.9	26.9
Air Filter	Туре		-	Pre Filter	Pre Filter	Pre Filter	Pre Filter
Temperature Cont			-			at for cooling and heatin	
Sound Absorbing	/ Thermal In:	sulation Material	-	Foamed polystrene	Foamed polystrene	Foamed polystrene	Foamed polystrene
Protection Device			-	Fuse	Fuse	Fuse	Fuse
Water	Inlet		-	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)
Connecting Pipes	Outlet		-	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)
Sound Pressure	Cooling (H		dB(A)	31 / 30 / 29	33 / 32 / 31	31 / 30 / 29	33 / 32 / 31
Level	Heating (H		dB(A)	31 / 30 / 29	33 / 32 / 31	31 / 30 / 29	33 / 32 / 31
Sound Power	Cooling (H		dB(A)	38 / 36 / 35	46 / 43 / 39	41 / 40 / 39	46 / 43 / 41
Level	Heating (H		dB(A)	38 / 36 / 35	46 / 43 / 39	41 / 40 / 39	46 / 43 / 41
Connecting Cable	Communica (VCTF-SB)	ation Cable	mm² x cores	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5

#### WFCA039RG0A / WFCA055RG0A WFCA066RG0A



INDOOR				WFCA039RG0A	WFCA055RG0A	WFCA066RG0A
Power Supply			Ø, V, Hz	1, 220-230-240, 50	1, 220-230-240, 50	1, 220-230-240, 50
Running Current b	y Voltage		Α	0.26-0.37-0.37	0.36-0.44-0.44	0.70-0.71-0.71
		Condition A		3.9 (3,353)	5.0 (4,299)	6.6 (5,675)
	C !:	Condition B	138771 1713	3.3 (2,837)	4.2 (3,611)	5.5 (4,729)
C	Cooling	Condition C	kW (kcal / h)	3.5 (3,009)	4.4 (3,783)	5.9 (5,073)
Capacity		Condition D		2.0 (1,721)	2.5 (2,150)	3.3 (2,837)
	Hartina	Condition A	1341/11/1->	4.2 (3,611)	5.3 (4,557)	6.6 (5,675)
	Heating	Condition B	kW (kcal / h)	5.0 (4,299)	6.4 (5,503)	8.0 (6,879)
		Condition A		13.3	17.0	21.7
	Carlina	Condition B	LDM	13.3	17.0	21.7
M	Cooling	Condition C	LPM	13.3	17.0	21.7
Water Flow Rate		Condition D		9.0	11.5	14.7
	Hostics	Condition A	LDM	13.3	17.0	21.7
	Heating Condition B		LPM	13.3	17.0	21.7
		Condition A		21.7	39.0	53.9
	Caaliaa	Condition B	I-De	21.7	39.0	53.9
Hand Lan	Cooling	Condition C	kPa	21.7	39.0	53.9
Head Loss		Condition D		5.7	27.2	37.6
	11 - 21	Condition A	1.0	30.3	48.3	71.7
	Heating	Condition B	kPa	30.3	48.3	71.7
Power Input	Nominal		W	29	44	81
Running Current	t Nominal		А	0.37	0.44	0.71
	Туре		-	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Air Flow Ra	ite (H / M / L)	m³ / min	10.7 / 9.3 / 7.2	14.4 / 10.7 / 9.3	20.1 / 17.3 / 14.4
Fan	External Static Pressure (Standard mode)		mmAq	0	0	0
	External Static Pressure (High mode)		mmAq	0	0	0
	Туре		-	BLDC	BLDC	BLDC
Fan Motor	Drive		-	CW	CW	CW
i ali iviotoi	Output		W x No.	19 x 2	19 x 2	19 x 2
	FLA (Full Lo	oad Ampere)	Α	0.37	0.44	0.71
Dimensions	Net (W x H	I x D)	mm	1,100 x 190 x 700	1,100 x 190 x 700	1,100 x 190 x 700
DIMENSIONS	Shipping (V	V x H x D)	mm	1,242 x 235 x 766	1,242 x 235 x 766	1,242 x 235 x 766
Weight	Net		kg	26.2	26.2	26.2
vveignt	Shipping		kg	30.7	30.7	30.7
Air Filter	Туре		-	Pre Filter	Pre Filter	Pre Filter
Temperature Cont	rol		-	Microproc	essor, Thermostat for cooling an	d heating
Sound Absorbing	/ Thermal Ins	sulation Material	-	Foamed polystrene	Foamed polystrene	Foamed polystrene
Protection Device			-	Fuse	Fuse	Fuse
Water	Inlet		-	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)
Connecting Pipes	Outlet		-	BSPF G 3/4" (male)	BSPF G 3/4" (male)	BSPF G 3/4" (male)
Sound Pressure	Cooling (H	/ M /L)	dB(A)	28 / 27 / 26	31 / 28 / 26	38 / 34 / 31
Level	Heating (H	/ M / L)	dB(A)	28 / 27 / 26	31 / 28 / 26	38 / 34 / 31
Sound Power	Cooling (H	/ M /L)	dB(A)	43 / 41 / 40	47 / 42 / 41	55 / 52 / 48
Level	Heating (H	/ M / L)	dB(A)	43 / 41 / 40	47 / 42 / 41	55 / 52 / 48
Connecting Cable	Communica (VCTF-SB)	ation Cable	mm² x cores	1.0 ~ 1.5	1.0 ~ 1.5	1.0 ~ 1.5

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# 244-317

# **CONTROL SOLUTIONS**

INDIVIDUAL CONTROL / CENTRALIZED CONTROL / INTEGRATION DEVICE



**C**LG

□ Additional Info

Fri, May 01 03:20 PM

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# The perfect choice for innovative building management

# **LG BECON HVAC SOLUTION**

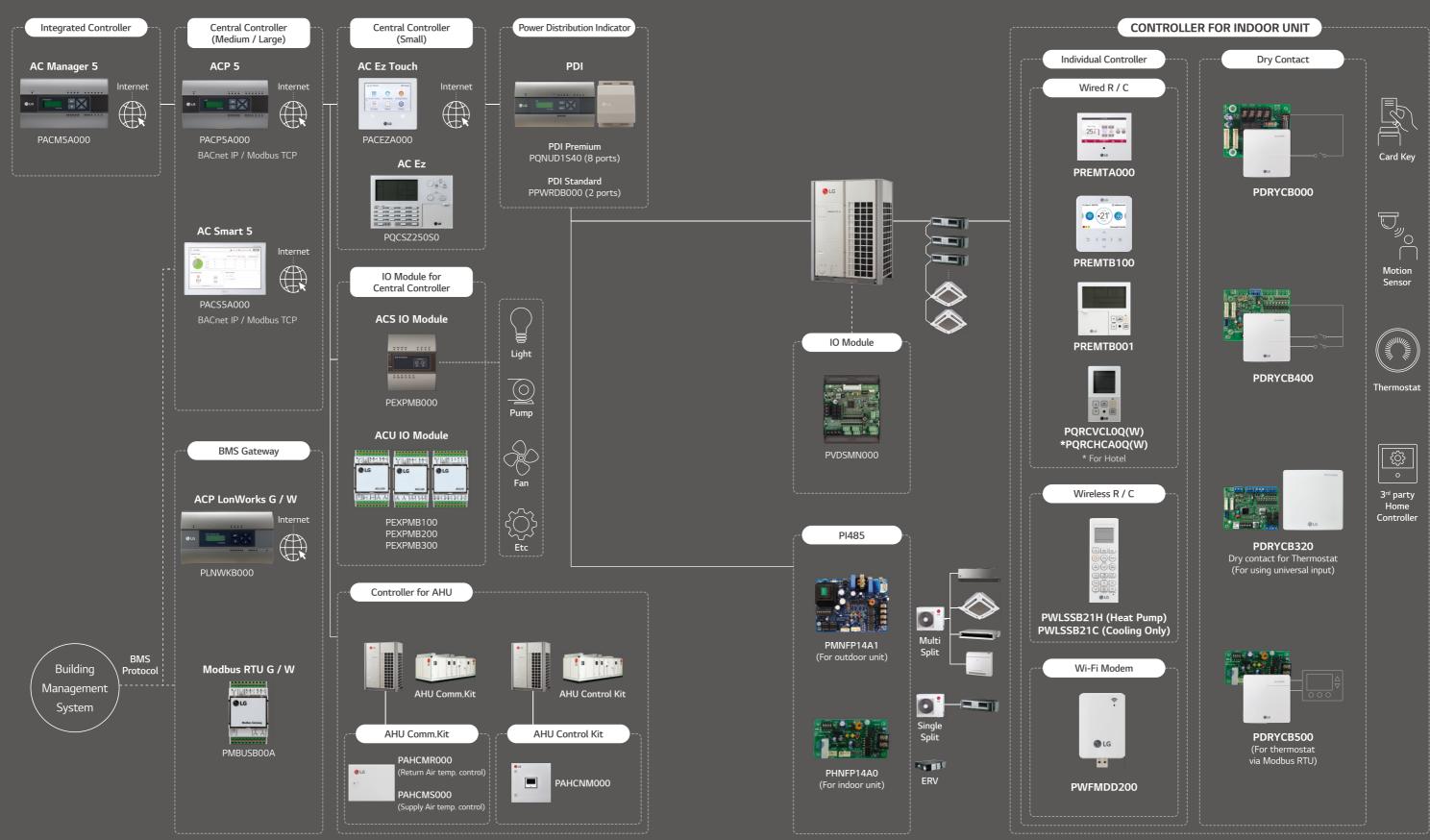
Innovative building management solution in your hands.

Our optimized solutions provide integrated control for customers configuration of various equipment in building and intuitive interface to maximize efficiency of operations.



# CONTROL SYSTEM ARCHITECTURE

LG BECON HVAC SOLUTION offers a diverse range of effective control solutions that satisfy specific needs of each building and its user scene. These control systems are equipped with user-friendly interface, flexible interlocking environment, energy management and smart individual controller for optimized controlling conditions and smart building management.





# **Feature Functions**

Controller Name		Wired Remote Controller					Wireless	Wi-Fi
		Premium	Standard III	Standard II	Simple	Simple (Hotel)	Remote Controller	Modem
Model Nan	Model Name							• IG
		PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001 PREMTBB01	PQRCVCL0Q PQRCVCL0QW	PQRCHCA0Q PQRCHCA0QW	PWLSSB21H (H/P) PWLSSB21C (C/O)	PWFMDD200
	On / Off	0	0	0	0	0	0	0
	Fan Speed Control	0	0	0	0	0	0	0
	Temperature Setting	0	0	0	0	0	0	0
	Mode	0	0	0	0	-	0	0
	Auto Swing	0	0	0	0	0	0	0
	Vane Control (Louver Angle)	0	0	0	0	0	0	0
Basic	E.S.P (External Static Pressure)	0	0	0	0	0	-	-
	Electric Failure Compensation	0	0	0	0	0	-	0
	Indoor Temperature Display	0	0	0	0	0	0	0
	All Button Lock (Child Lock)	0	0	0	0	0	-	-
	Schedule / Timer	Weekly - Yearly	Weekly - Yearly	Weekly	-	-	Sleep / On / Off	Weekly
	Wi-Fi AP Mode Setting	0	0	0	0	0	0	-
	Additional Mode Setting 1)	0	0	0	-	-	-	-
	Time Display	0	0	0	-	-	0	-
	Humidity Display	0	0	-	-	-	-	-
	Advanced Lock (Mode, Set point, Set point range, On / Off Lock)	Advanced Lock	Advanced Lock	-	-	-	-	-
	Filter Sign	0	0	0	-	-	-	-
Advanced	Energy Management 2)	0	0	0	-	-	-	-
	Dual Set Point	0	0	-	-	-	-	-
	Human Detection	-	0	-	-	-	-	-
	Temp, Humidity Compensation	0	0	-	-	-	-	-
	Air Purify Control	-	0	-	-	-	0	0
	Air Quality Level	-	0	-	-	-	-	0
	Dual Vane (6 Airflows mode)	-	0	-	-	-	0	0
	Operation Status LED	0	0	0	0	0	-	-
	Wireless Remote Controller Receiver	○ 3)	-	○ 3)	○ 3)	○ 3)	-	-
ETC	Display	5 inch Color	4.3 inch Color	4.3 inch mono	2.6 inch mono	2.6 inch mono	2 inch mono	-
	Size (W x H x D, mm)	137 x 121 x 16.5	120 x 120 x 16	120 x 121 x 16	70 x 121 x 16	70 x 121 x 16	51 x 153 x 26	48 x 68 x 14
	Black Control for Screen Saver	0	0	-	-	-	-	-

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 <sup>※ ○:</sup> Applied, -: Not Applied
 1) It might not be indicated or operated at the partial product.
 2) Centralized control (PACEZA000 / PACSSA000 / PACPSA000 / PLNWKB000) and PDI (PQNUD1S40 / PPWRDB000) should be installed for this function.
 3) For ceiling type duct
 Note:
 1. Indoor unit should have functions requested by the controller.
 2. If you need more detail, please refer to the manual of product (http://partnerlge.com: Home > DocLibrary > Manual)



#### Design

Cool

- 4.3 inch color LCD / Intuitive GUI
- Seamless design / Touch button
- Humidity sensor embedded

#### Comfort & Air Purification

- CO<sub>2</sub> level monitoring (For ERV)
- Air quality level monitoring
- Air purify control

#### **Energy Contents**

- Power consumption monitoring
- Operation time monitoring
- Temperature setback

Comfort Level

- Time limit control

#### **Advanced Functions**

- Comfort cooling setting
- Smart Load Control setting
- Outdoor unit low noise setting

Energy Contents

- Defrost noise setting
- ODU capacity control
- Schedule functions



Heat



Dry



Fan

Fan

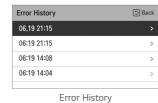








Auto



Comfort Level

This indoor unit has been run for 1 hours,

# Standard III Wired Remote Controller

#### PREMTB100 (White) / PREMTBB10 (Black)

4.3 inch colored screen with modern design.







Convenience





(Air Purify)



**INDIVIDUAL CONTROL** 







MODEL NAME	PREMTB100 / PREMTBB10
On / Off	0
Fan Speed Control	0
Temperature Setting	0
Mode	Cool / Heat / Dry / Fan / Auto
Additional Mode Setting 1)	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification / Comfort Cooling
Auto Swing	0
Vane Control (Louver direction)	0
E.S.P (External Static Pressure) <sup>2)</sup>	0
Reservation	Simple / Sleep / On & Off timer / Weekly / Yearly / Holiday
Time Display	0
Electric Failure Compensation	0
Lock	All / On & Off / Mode / Set temperature range
Filter Sign	○ (Remain time + Alarm)
Energy Management	Check Energy Usage <sup>3)</sup> / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Operation / Alarm Popup / Initialization Usage Data
Operation Status LED	0
Air Purify Control <sup>4)</sup>	0
Air Quality Level 4)	0
Indoor Temperature Display	0
Indoor Humidity Display	0
Human Detection	0
Display	4.3 inch TFT color LCD (480 x 272)
Size (W x H x D, mm)	120 x 120 x 16
Black Light for Screen Saver	0
Home Leave	2 set points control

- O: Applied, -: Not Applied
  The function is available in some product. (Refer to the product data Book).
  This function is available for duct type.
  This function requires PDI (PQNUD1540 / PPWRDB000) to be installed.
  This function is available for indoor units that provide corresponding function.

- 1. Indoor unit needs to have functions requested by the controller.
  2. 2 set points control works normally with MULTI V Heat Recovery and Single Split Heat Pump. But in case of MULTI V Heat Pump, It may not work properly.

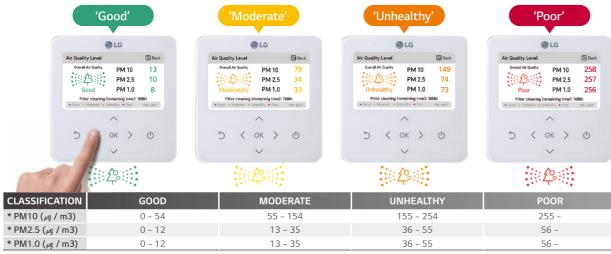
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#### Standard III Wired Remote Controller

#### Air Quality Level Display

#### Easy check for indoor air quality

PM10 / PM2.5 / PM1.0 · Status / Monitoring



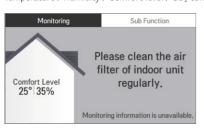
- Note: Display color may change depending on the region / country. This function is available for indoor units that provide corresponding function. 
  \* PM (Particulate matter)
- PM10 : Coarse Particulate matter / PM2.5 : Fine Particulate matter / PM1.0 : Ultra Fine Particulate matter
- PM designated as a carcinogen as like an asbestos, widely known as carcinogen.

  If the dust diameter is under 10 micrometers, it is PM10. And under 2.5 micrometers, it's PM2.5.

#### **Environment Display**

#### Displaying environment information for the more user comfort

Temperature / Humidity / Comfort level / CO<sub>2</sub> concentration







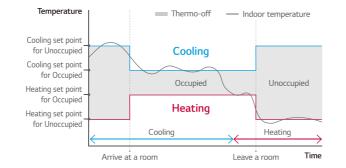
#### **Dual Set Point**

#### Auto changeover for convenience

- Indoor unit will keep the indoor temperature within the range of dual set point by automatically switching the unit operation.

#### Setback for energy savings and comfort

- In the user's absence, the room temperature will remain between two set points rather than switching off, providing quick comfort when the mode is changed to 'occupied'.
- % This function is for Heat Recovery system or Single heat pump. Otherwise it is not guaranteed.



#### **Energy Savings**

#### **Energy Management**

- Energy Monitoring & Alarm Real-time and day / week / month / year energy usage monitoring is possible. In addition, it can set target for energy usage and operation time, and alarm will be displayed when exceeded.

※ PDI (PONUD1S40 / PPWRDB000) is required.



Instantaneous Power Check

Energy Usage Target Setting

#### Time Limit Control

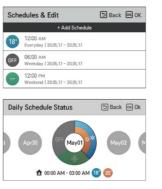
- Monitoring the unit's continuous running time. And prevent the wasting energy by turning the unit off automatically.



#### **Schedule Function**

#### Simple Schedule Status

Standard III remote controller provides clock type daily schedule.



#### **Exception Day Settings**

Possible to set up exceptional date on regular schedule.



#### External Device On / Off

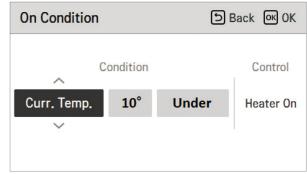
#### **External Equipment Control**

User can control the external equipment through additional contact signal output.



#### **Customized Interlocking Control**

User can create a automatic control pattern. For example, turning the temperature drops below or rises above a certain temperature.



**CONTROL SOLUTIONS** 

# **Premium Wired Remote Controller**





#### PREMTA000 1) / PREMTA000A 2) / PREMTA000B 3)

5 inch full touch screen with a premium design.



\* Supported languages list 1) English / Portuguese / Spanish / French 2) English / Italian / Russian / Chinese 3) English / German / Polish / Czech

MODEL NAME	PREMTA000 / PREMTA000A / PREMTA000B
On / Off	0
Fan Speed Control	0
Temperature Setting	0
Mode	Cool / Heat / Dry / Fan / Auto
Additional Mode Setting 1)	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	0
Vane Control (Louver direction)	0
E.S.P (External Static Pressure) 2)	0
Reservation	Simple / Sleep / On / Off / Weekly / Yearly / Holiday
Time Display	0
Electric Failure Compensation	0
Child Lock	0
Filter Sign	○ (Remain time + Alarm)
Energy Management	Check Energy Usage <sup>3)</sup> / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Operation / Alarm Popup / Initialization Usage Data
Operation Status LED	0
Indoor Temperature Display	0
Wireless Remote Controller Receiver	O <sup>4)</sup>
Display	5 inch TFT color LCD (480 x 272)
Size (W x H x D, mm)	137 x 121 x 16.5
Black Light for Screen Saver	0
Home Leave	2 set points control

- O : Applied, : Not Applied
   It might not be indicated or operated at the partial product.
   This function is available for duct type.
   This function requires PDI (PONUD1540 / PPWRDB000) to be installed.
- 4) For ceiling type ducted unit
- A) For certifying you outced unit.

  Note: 1. Indoor unit needs to have functions requested by the controller

  2. 2 set points control works normally with MULT V Heat Recovery and Single Split Heat Pump. But in case of MULTI V Heat Pump, It may not work properly

#### Easy Energy Management

- Check the operation hour or electricity usage
- Comparison of usage by year
- Set the target usage and time





#### Easy Scheduling

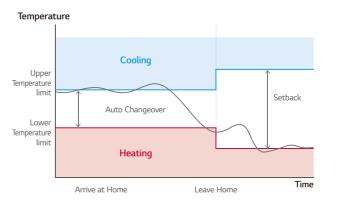
- Daily, Weekly, Yearly schedule function
- Schedule pattern setting
- Schedule copy





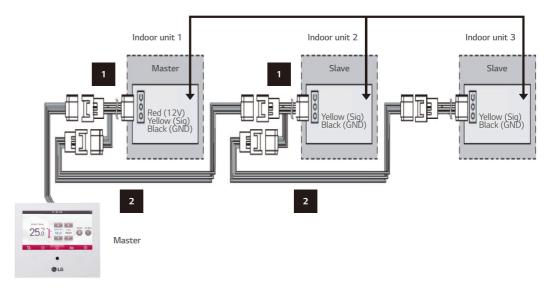
#### **Dual Set Point**

- Auto changeover switching the operation mode automatically
- Setback (Leave Home) Changing status by occupied / unoccupied
- \* This function is only for Heat Recovery system and Single heat pump.



#### **Group Control**

- Max. 16 Indoor units by one remote controller



# Standard II Wired Remote Controller

#### PREMTB001 / PREMTBB01

Providing easy control of one or a group of indoor units with various functions.





#### Features & Benefits

• Wired remote controller that can implement various functions such as scheduling or filter alert.

MODEL NAME	PREMTB001 / PREMTBB01
On / Off	0
Fan Speed Control	0
Temperature Setting	0
Mode	Cool / Heat / Dry / Fan / Auto
Additional Mode Setting	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	0
Vane Control (Louver direction)	0
E.S.P (External Static Pressure)	0
Reservation	Simple / Sleep / On / Off / Weekly / Holiday
Time Display	0
Electric Failure Compensation	0
Child Lock	0
Filter Sign	○ (Remain time + Alarm)
Operation Status LED	0
Indoor Temperature Display	0
Wireless Remote Controller Receiver	O 1)
Size (W x H x D, mm)	120 x 121 x 16
Black Light	0
Power Consumption Monitoring	○ <sup>2)</sup>
Check Model Information	0

# Simple Wired Remote Controller

#### PQRCVCLOQW (White) / PQRCVCLOQ (Black) / PQRCHCAOQW (White) / PQRCHCAOQ (Black)

A simple way to control office or hotel systems in a compact design.







#### Features & Benefits

· Small remote control with minimal functionality.

MODEL NAME	PQRCVCL0QW / PQRCVCL0Q	PQRCHCA0QW / PQRCHCA0Q
On / Off	0	0
Fan Speed Control	0	0
Temperature Setting	0	0
Mode	Cool / Heat / Dry / Fan / Auto	-
Auto Swing	0	0
Vane Control (Louver direction)	0	0
E.S.P (External Static Pressure)	0	0
Electric Failure Compensation	0	0
Child Lock	0	0
Indoor Temperature Display	0	0
Wireless Remote Controller Receiver	O 1)	O 1)
Size (W x H x D, mm)	70 x 121 x 16	70 x 121 x 16
Black Light	0	0

# **Wireless Remote Controller**

#### PWLSSB21H (Heat Pump), PWLSSB21C (Cooling Only)

Handy and portable wireless type.



#### Features & Benefits

- Easy to use while moving. • Main functions are available
- MODEL NAME PWLSSB21H (H/P), PWLSSB21C (C/O) On / Off Fan Speed Control Temperature Setting Cool / Heat / Dry / Fan / Auto Mode Additional Mode Setting Air Purification / Energy-Saving Cooling / Robot Cleaning / Auto Dry Auto Swing 0 Vane Control (Louver direction) Reservation Time Display Indoor Temperature Display 0 Max. 7 hours Sleep Mode Auto Size (W x H x D, mm) 51 x 153 x 26

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<sup>※</sup> O : Applied, - : Not Applied

 For ceiling type ducted unit
 This function requires PDI (PQNUD1S40 / PPWRDB000) to be installed.

Note: Indoor unit needs to have functions requested by the controller.

O: Applied, -: Not Applied
 For ceiling type ducted unit
 Note: Indoor unit needs to have functions requested by the controller.

# Wi-Fi Modem



#### PWFMDD200

Control conditioners by using internet devices as Android or iOS smartphones.



#### **Features & Benefits**

- User can enjoy anytime, anywhere access with Wi-Fi equipped device through LG's ThinQ mobile app.
- This allows the user to access the unit remotely to switch unit on or off before or after leaving the vicinity.
- $\bullet$  LG's exclusive Home Appliances control app (LG ThinQ) is available.
- Simple operation for various functions.
- Operation Mode
- Current / Set Temperature
- Fan Speed
- Vane Control 1

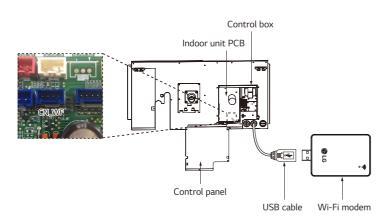
- Reservation (Sleep, Weekly On / Off)
- Energy Monitoring 2)
- Filter Management
- Error Check - Air Purify 3)

MODEL NAME	PWFMDD200
Size (W x H x D, mm)	48 x 68 x 14
Interfaceable Products	System Air Conditioner 3)
Connection Type	Indoor unit 1:1
Communication Frequency	2.4 GHz
Wireless Standards	IEEE 802.11b / g / n
Mobile Application	LG ThinQ (Android v4.1(Jellybean) or higher, iPhone iOS 9.0 or higher)
Optional Extension Cable	PWYREW000 (10m extension)

- 1) Vane Control may not be possible according to the type of Indoor unit. 2) LG Centralized controller and PDI installation is required for this function 3) For the compatibility with Indoor unit, please contact regional LG office.

CONTROL SOLUTIONS

- Functionality may be different according to each IDU model.
- User interface of application shall be revised for its design and contents improvement.
   Application is optimized for smartphone use, so it may not be well functioning with tablet devices.
- **Installation Scene**

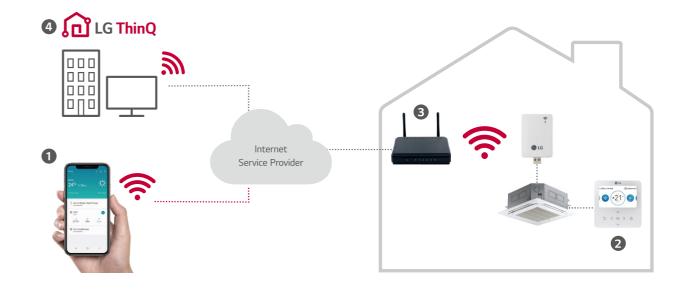


\*\* The Wi-Fi communication distance and reliability may be vary due to the type of Wi-Fi router and the installation environment, Please refer to the manual.

#### LG ThinQ Connectivity

#### Connection (Pairing) Order

- Make LG account on LG ThinQ (Application) and login.
- ② Select the installed product and set AP (Access Point) mode by wired / wireless remote controller.
- 3 Select the Wi-Fi network that will be used and insert the passwords.
- Product registration progress is completed.
- \* 5GHz networks may not be supported.



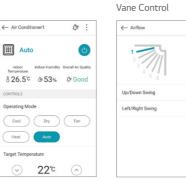
#### LG ThinQ Mobile App

#### Simple operation for various functions

On, Off, Current Temp., Mode, Set Temp.



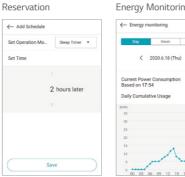






#### Easy Management

#### Energy Monitoring

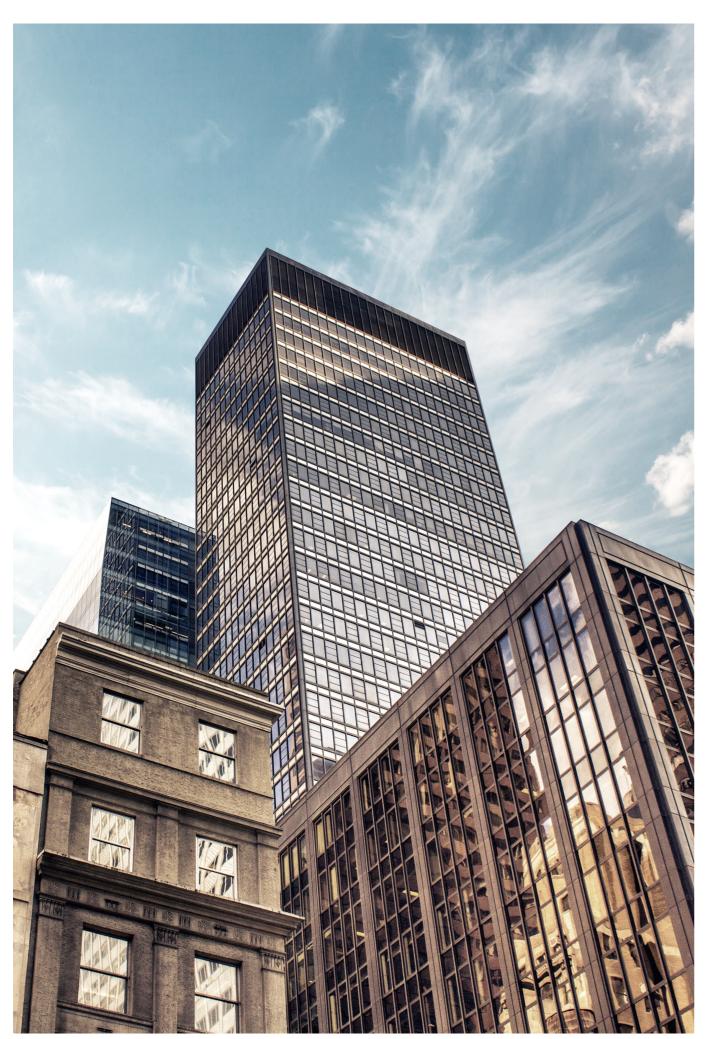






#### Filter Management

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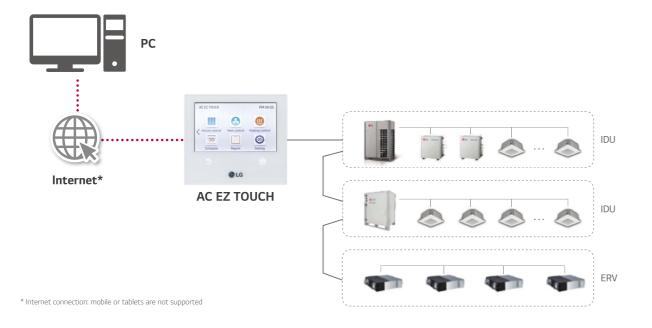


# **Feature Functions**

Controller Na	me		AC Ez	AC Ez Touch	AC Smart 5 6)	ACP 5 <sup>6)</sup>	ACP LonWorks	AC Manager 5 7
Model Name			○ (0 h) ○	00 No.	A-14	• Common Grant St.	** ***	•u
			PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PLNWKB000	PACM5A000
	DO		-	-	2	4	2	-
	DI		-	1	2	10	2	-
		IDUs	32	64	128	256	64	8,192
Product		ERV	32	64	128	256	64	8,192
rioduct	Max. Connectable	A / C + ERV	32	64	128	256	64	8,192
	No.	AHU	-	-	16	16	16 5)	16 x 32
		Chiller	-	-	5 Optional 4)	10 Optional 4)	-	10 x 32
		Commercial Air Purifier 1)	-	-	64	128	-	128 x 32
	Air Conditione	r	○ 3)	0	0	0	0	0
	Ventilation (EF	RV / ERV DX)	O 4)	0	0	0	0	0
	Heating		-	0	0	0	0	0
Compatibility	AHU		-	-	0	0	0	0
	Chiller		-	-	O 5)	O 5)	-	0
	Commercial A	ir Purifier 1)	-	-	O 5)	O 5)	-	0
	ACS IO		-	-	O 5)	O 5)	O 5)	0
Additional Function	Add Drawing		-	-	O 5)	O 5)	O 5)	0
	Group Management		-	0	O 5)	O 5)	O 5)	0
	Auto Changer Over		-	0	O 5)	O 5)	O 5)	0
	Set Back		-	0	O 5)	O 5)	O 5)	0
	Dual Setpoint		-	0	0	0	O 5)	0
i dilectori	Change Alarm		-	Filter	Filter	Filter	Filter	Filter
	Indoor Unit Lock		O 8)	0	0	0	O 5)	-
	Cycle Monitoring		-	-	0	0	O 5)	0
	Air Purify		-	O 5)	O 5)	O 5)	-	0
Schedule			0	0	O 5)	O 5)	O 5)	0
		Energy & Priority Control	-	0	0	0	O 5)	0
Auto Control	Peak Control	Outdoor Unit Capacity Control	-	-	O <sup>5)</sup>	O <sup>5)</sup>	O <sup>5)</sup>	0
	Time limit con	trol	-	-	O 5)	O 5)	O 5)	0
	Interlocking		-	-	O 5)	O 5)	O 5)	0
Energy Navigat	ion		-	-	O 5)	O 5)	-	0
	Power		-	0	0	0	O 5)	0
Energy	Gas		-	-	0	0	O 5)	0
Energy Report	Run time		-	-	O <sup>5)</sup>	O <sup>5)</sup>	O 5)	0
	Save to PC / L	JSB (Excel)	-	-	PC / USB <sup>5)</sup>	PC	PC	PC
Trend Reporting	g		-	-	-	-	-	0
	Report (Contr	ol / Error)	-	Error	O <sup>5)</sup>	O <sup>5)</sup>	O 5)	0
History	Send Email		-	-	O <sup>5)</sup>	O <sup>5)</sup>	O 5)	0
	Save to PC / L	JSB (Excel)	-	-	PC / USB <sup>2)</sup>	PC <sup>2)</sup>	O 5)	PC <sup>2)</sup>
	Summer Time		-	0	O 5)	O 5)	O 5)	0
	Outdoor Unit Oil-Return Operation		-	-	O 5)	O 5)	O 5)	-
etc	User Authority		-	Password	O 5)	O <sup>5)</sup>	O 5)	0
	PC Access		_	0	O 5)	O 5)	O 5)	0

 ※ ○ : Applied, - : Not Applied
 1) The Commercial Air purifier must additionally install PI485 (PHNFP14A0).
 2) Save to PC / USB function will be available from 2021.
 3) Except for some feature (Individual lock, Limit temp., etc.)
 4) Except for some feature (User mode, additional function, etc.)
 5) This function is not applied for BMS points.
 6) Without additional device, ACP 5 and AC Smart 5 provide BACnet IP and Modbus TCP interface for BMS.
 7) ACP 5 or AC Smart 5 is required.
 8) Hard Lock CONTROL SOLUTIONS 262 I 263

# **AC EZ Touch**



#### PACEZA000

Smart management with 5 inch touch screen for small site.



MODEL NAME	PACEZA000
Size (W x H x D, mm)	137 x 121 x 25
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro Kit / THERMA V
Maximum number of units	64
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly / Monthly / Yearly / Exception day
Remote Access	By client S/W (Neither Android nor IOS are supported)
Emergency Stop & Alarm Display	0
Power Consumption Monitoring (with PDI)	0
Auto Changeover / Setback	0
Temperature Limit	0
Operation History	Error record
ODU Low Noise 1)	0
Daylight Saving Time	0
External IO Port	DI 1
IPv6 Support	0
Air Purify Control	0
Air Quality Level	0

<sup>※ ○ :</sup> Applied, - : Not Applied1) It is only available in some products.

#### PC Access

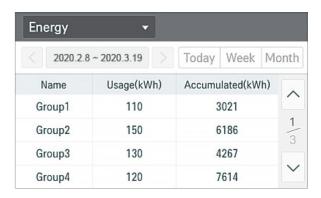
Users can control each space efficiently through PC access.



- \* IPv6 supported
   Open port 80 & 9300
   Fix public IP is mandatory. Router configuration of NAT is required.

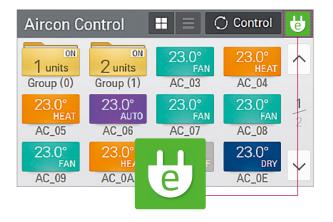
#### **Energy Statistics (with PDI)**

Statistics of operational status (Time, Power consumption) are provided to help make intelligent system operation decisions.

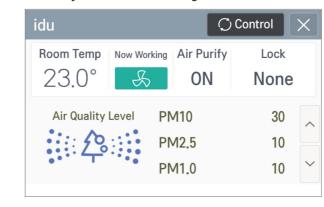


#### **Energy Mode**

When using energy mode function, operation Modes from cooling to fan or heating to off mode by force. (It is available only for operating indoor unit)



#### Air Purify Control & Monitoring

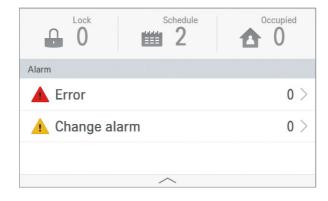




# **AC EZ Touch**

#### **Alarm Indicator**

It shows errors and alarm information. Users can respond immediately according to alarm indicator therefore HVAC system is monitored consistently.



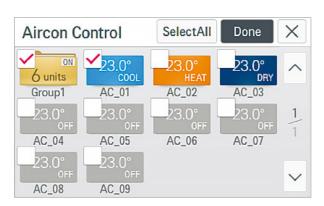
#### Schedule

Schedule control allows user to set the events in advance to maximize system performance. Also, by blocking unnecessary operation, it prevents a waste of energy.

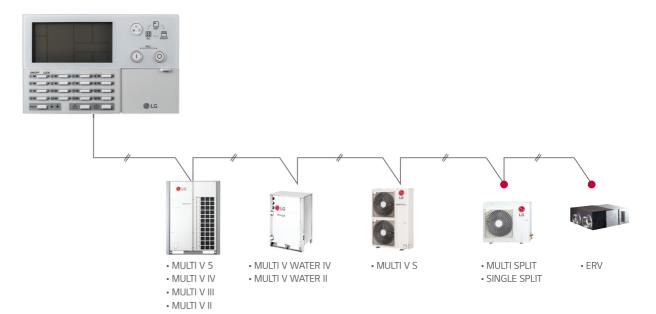
Schedule_Month ▼ ⊕ Add							
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
28	29	1	2	3	4	5	^
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	2020
20	21	22	23	24	25	26	03
27	28	29	30	31	1	2	
3	4	5	6	7	8	9	~

#### **Group / Individual Control**

User can control each indoor unit individually or by group by simply clicking each unit on control screen.



# **AC EZ**



Appropriate PI485 should be used according to PDB.

#### PQCSZ250S0

Easy to manage up to 32 indoor units, including ERV with simple interface.



#### Features & Benefits

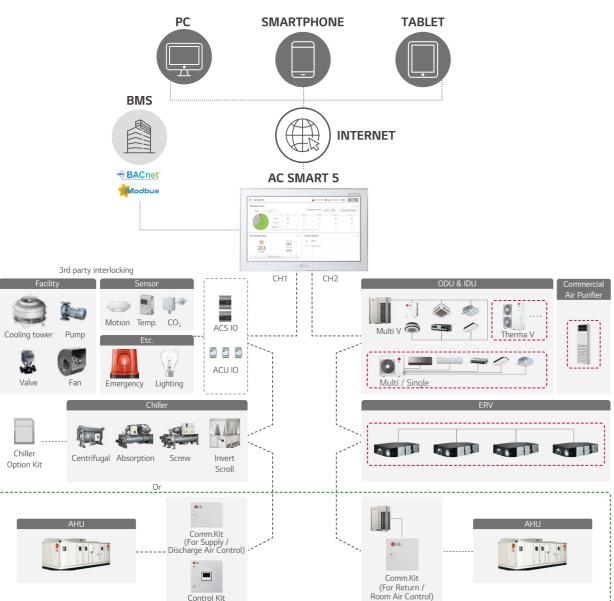
- 32 indoor units control
- Weekly Schedule
- Individual / Group Control

MODEL NAME	PQCSZ250S0
Size (W x H x D, mm)	190 x 120 x 20
Interfaceable Products	MULTI V / ERV / ERV DX
Display	LED / LCD Display
Power	DC12V, 1A
Maximum number of units	32
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	All
Error Check	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly

※ ○ : Applied, - : Not Applied

CONTROL SOLUTIONS





- 22 According to CH1 setting, normal ODU can be connected to CH1.
- (Flexible wiring design with 2 ports)

  Appropriate PI485 should be used according to PDB (Product Data Book).

  For details, refer to the product PDB or manual.

# **AC Smart 5**

#### PACS5A000

10-inch touch screen with HTML5 GUI (Graphic User Interface) for easy control.











Map view

**CENTRALIZED CONTROL** 



	Multi level grouping
--	-------------------------

MODEL NAME	PACS5A000
Size (W x H x D, mm)	253.2 x 167.7 x 28.9
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V / AHU Kit / LG Chiller <sup>1)</sup> / Commercial Air Purifier
Maximum number of units	128
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Advanced Function Setting and Display 2)	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO2 Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	0
Emergency Stop & Alarm Display	0
Power Consumption Monitoring (with PDI)	0
Auto Changeover / Setback	0
Temperature Limit	0
Operation Time Limit	0
Visual Navigation	0
Operation Trend	0
Air Purify Control	0
Air Quality Level	0
Interlock Control	0
Virtual Group Control	0
ODU Capacity Control	0
Energy Navigation (with PDI)	0
Daylight Saving Time	0
External IO Port	DI 2 / DO 2
BMS Integration <sup>3)</sup>	BACnet IP / Modbus TCP
IPv6 Support	0
× 0 : Ali-d : N-+ Ali-d	

- O: Applied, -: Not Applied
  Chiller Option htt (PCHLLN000) is required.
  It is only available in some products.
  For the detail point list, please refer to the installation manual.

CONTROL SOLUTIONS 268 I 269

# AC Smart 5

#### **Air Purify Total Solution**

#### Air Purify Control

CENTRALIZED

CONTROL





function (Set / Clear)

#### Air Quality Level Monitoring





\* The Commercial Air purifier must additionally install PI485(PHNFP14A0).

#### **Advanced Network Accessibility**

AC Smart 5 reflects the state of the art of network technology trend. IPv6 (Internet Protocol version 6), which is the most recent version of the Internet Protocol provides accessibility to the IPv6 compatible network environment. In addition, HTML5 allows you to easily control LG HVAC system on a variety of platforms (PC, Mobile, Tablet), at any time and from any location, not just on the touch screen.



#### Visualized Control

Visual navigation enables controlling and monitoring the unit on floor, plan view for the intuitive management.



#### Multi Level Group Composition

User can make frequent and multi level group to control and monitor the device easily.



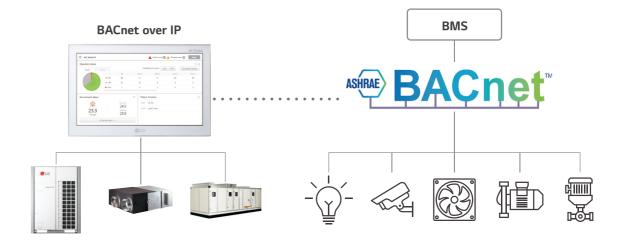
#### **Energy Management**

The energy navigation function allows the air conditioner's operational energy usage to be manged monthly, weekly and yearly. By analyzing present energy consumption and comparing with the plan, overuse of system operational costs can be prevented.



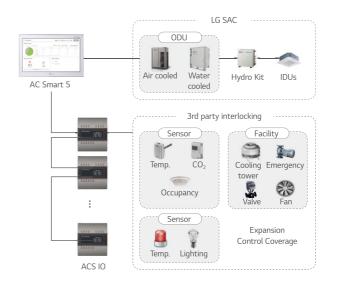
#### **Building Management System (BMS) Integration**

Without additional device, AC Smart 5 provides BACnet IP & Modbus TCP interface for BMS integration as well as its own management function.



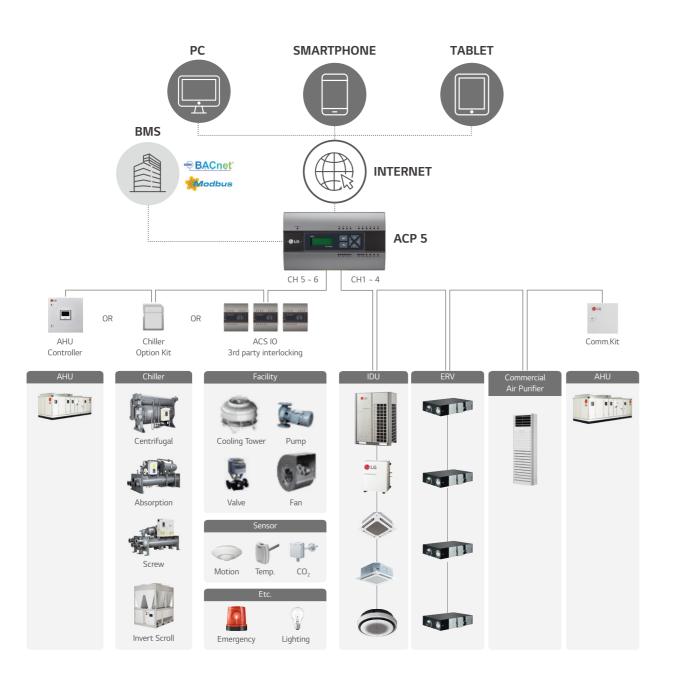
#### Interlocking with 3rd Party Equipment

AC Smart 5 can make operation scenario with 3rd party equipment by ACS IO Module. Control coverage is expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches…)



CONTROL SOLUTIONS

# ACP 5



#### **Advanced Network Accessibility**



\* Fix Public IP is mandatory.
\* Router's Configuration of NAT is mandatory. Open port 80 & 9300.

#### **Energy Navigation**



#### **BACnet IP & Modbus TCP**



#### PACP5A000

Advanced solution for BMS integration up to 256 units via BACnet and Modbus protocol as well as its own smart management function with web server interface.



MODEL NAME	PACP5A000	
Size (W x H x D, mm)	270 x 155 x 65	
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V / AHU Kit / LG Chiller 1) / Commercial Air Purifi	
Maximum number of units	256	
Individual / Group Control	On & Off / Mode / Temperature / Fan speed	
Individual Controller Lock	Temperature / Mode / Fan speed / All	
Advanced Function Setting and Display <sup>2)</sup>	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO <sub>2</sub> Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)	
Error Check	0	
Schedule	Weekly / Monthly / Yearly / Exception day	
Web Access	0	
Emergency Stop & Alarm Display	0	
Power Consumption Monitoring (with PDI)	0	
Auto Changeover / Setback	0	
Temperature Limit	0	
Operation Time Limit	0	
Visual Navigation	0	
Operation Trend	0	
Air Purify Control	0	
Air Quality Level	0	
Interlock Control	0	
Virtual Group Control	0	
ODU Capacity Control	0	
Energy Navigation (with PDI)	0	
Daylight Saving Time	0	
External IO Port	DI 10 / DO 4	
BMS Integration 3)	BACnet IP / Modbus TCP	
IPv6 Support	0	

- \*\* O : Applied, : Not Applied

  1) Chiller Option Kit (PCHLLN000) is required.

  2) It is only available in some products.

  3) For the detail point list, please refer to the installation manual.

#### Air Purify Control / Monitoring

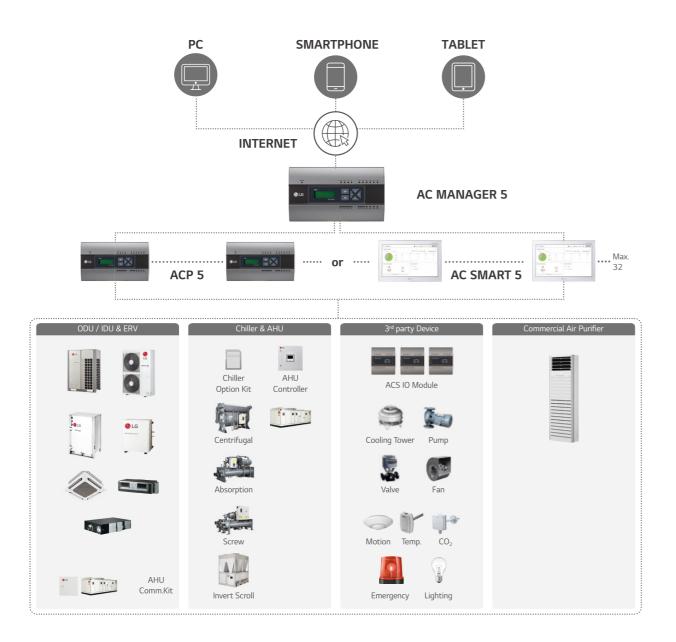
#### Integrated Management

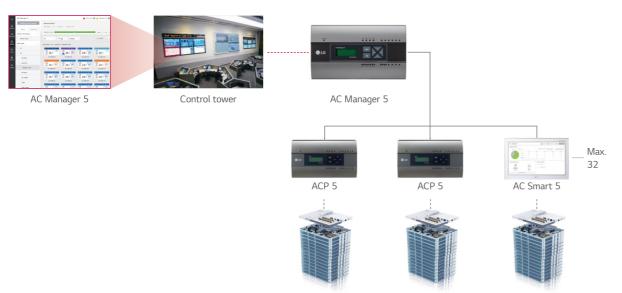
The Commercial Air Purifier can be used with LG central controller to monitor and control.



CONTROL SOLUTIONS 272 I 273

# **AC MANAGER 5**





#### PACM5A000

Multiple ACP and AC Smart integration solution to manage multi sites up to 8,192 units as a single system.



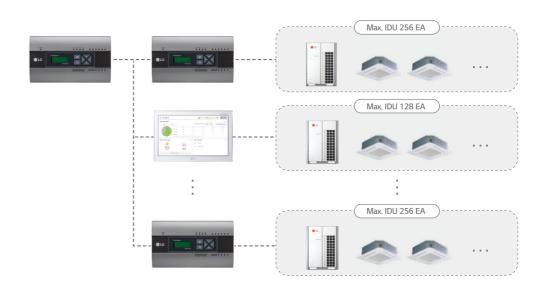


MODEL NAME	PACM5A000	
Size (W x H x D, mm)	270 x 155 x 65	
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V / AHU Kit / LG Chiller 1) / Commercial Air Purific	
Maximum number of units	8,192 (Supports 32 ACP 5 or AC Smart 5)	
Individual / Group Control	On & Off / Mode / Temperature / Fan speed	
Individual Controller Lock	Temperature / Mode / Fan speed / All	
Error Check	0	
Schedule	Weekly / Monthly / Yearly / Exception day	
Web Access	0	
Emergency Alarm Display	0	
Power Consumption Monitoring (with PDI)	0	
Auto Changeover / Setback	0	
Temperature Limit	0	
Operation Time Limit	0	
Visual Navigation	0	
Operation Trend	0	
Air Purify Control	0	
Air Quality Level	0	
Interlock Control	0	
Virtual Group Control	0	
ODU Capacity Control	0	
Energy Navigation (with PDI)	0	

 $\times$  O : Applied, - : Not Applied 1) Chiller Option Kit (PCHLLN000) is required for ACP 5 or AC Smart 5. Note : AC Manager 5 required for ACP 5 or AC Smart 5

#### Up to 8,192 Connections for Indoor Units

Administrators can easily and conveniently manage a variety of LG HVAC equipment. Also, it is available to manage many buildings or areas at one place via AC Manager 5.



CONTROL SOLUTIONS

**ENTRALIZED** 

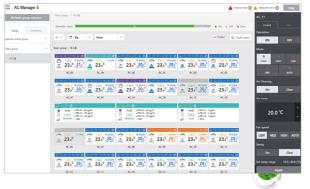
CONTROL

#### **AC MANAGER 5**

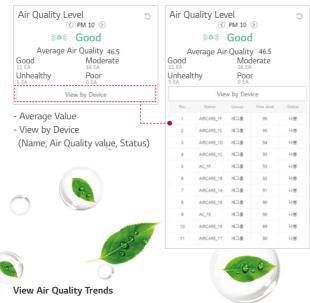
#### **Smart Air Purify Solution**

Total management of air purify function creates clean environment everyday.

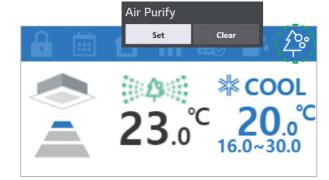




#### Air Quality Summary Widget







- Easy setting of Air Purify function (Set / Clear)



- Daily (per hour), period (30 days) shows trends
- Excel output / easy to manage

#### Advanced Network Accessibility & User Friendly GUI

As an advanced central controller, AC Manager 5 offers flexible interface for each user by assessing the device screen and automatically customizing the layout to provide the most optimized interface.



#### **Energy Navigation & Energy Usage Graph**

Energy navigation is the function to set the target usage amount to limit the monthly power consumption and to control so that the total accumulated power consumption does not exceed the target usage amount. It performs total of 7 control levels with the estimated / actual usage amount exceeding ratio compared to the monthly target usage amount. For the control method, there are indoor unit operation ratio, outdoor unit capacity control, and indoor unit operation control.



#### Peak Control

This function can reduce electricity use. There are two kinds of control logic. Energy saving effect by indoor unit operation rate control. Load management effect by outdoor unit capacity control.

#### Operation ratio (IDUs) Control



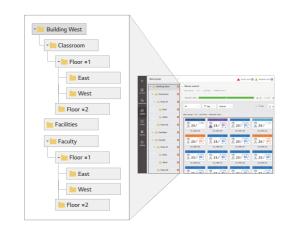
#### **ODU Capacity Control**



Compressor Hz Control

#### Multi Level Group Composition

User can make frequent and multi level group to control and monitor the device easily.



CONTROL SOLUTIONS 276 | 277

reddot award

# **ACP LonWorks Gateway**

#### PLNWKB000

LonWorks easily link LG Air conditioners and other existing building systems.

By including ACP control function, the controlling continues even when error occurs with BMS.



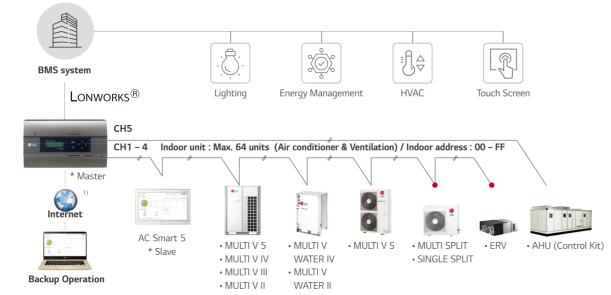
#### Features & Benefits

- Connect to use LonWorks protocol and LG Air conditioner protocol.
- Process ability (Max. connection): Indoor unit 64EA, AHU Control Kit: Max. 16EA
- Self installation verification using internet (Web Server Included)
- Diagnosis of communication status on LG Air conditioner network

	• It offers a variety of functions as ACP
	which allows the customer to efficiently
t	control various types of equipment from th
	customer's own Integration.

CONTROL	MONITORING	
On / Off Command	On / Off	
Operation Mode Setting	Operation Mode	
Lock	Lock	
Temperature	Temperature	
Fan Level	Fan Level	
Fan Direction Auto	Fan Direction Auto	
Mode Lock	Mode Lock	
Fan Level Lock	Fan Level Lock	
Temperature Lock	Temperature Lock	
Temperature Lower Limit	Temperature Lower Limit	
Temperature Higher Limit	Temperature Higher Limit	
Peak Convert Cycle	Peak Convert Cycle	
Peak Setting	Peak Setting	
Temperature Unit	Temperature Unit	
Total Temperature Lock	-	
Total On / Off	-	
Total Temperature	-	
-	Product Type	
-	Product Address	
-	Current Temperature	
-	Alarm	
-	Power	
-	Error Code	
-	Peak Current Operating Percent	
<u> </u>	Total Accumulate Power	

※ ○ : Applied, - : Not Applied



<sup>1)</sup> Assignment of public IP address is required to access central controller through internet.

# **PI485**

PI485 converts LG Air conditioners protocol to the RS485 protocol for the central controller.

#### PMNFP14A1

Easy to manage up to 64 indoor units, including ERV with simple interface.



- Power : Single phase AC 220V 50 / 60Hz
- 1 for Each Outdoor Unit
- Multi V MINI (ARUN40GS2A / ARUV40GS2A Only needs PI485)
- Single Split
- Multi Split
- Therma V

#### PHNFP14A0



- Power : Connected with the Indoor Units
- 1 for Each Indoor Unit
- Indoor Unit (ERV)

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Appropriate PI485 should be used according to PDB (Product Data Book).

# **MODBUS RTU Gateway**

#### PMBUSB00A

Providing Modbus RTU connection between LG Air conditioners and BMS.



**CENTRALIZED CONTROL** 

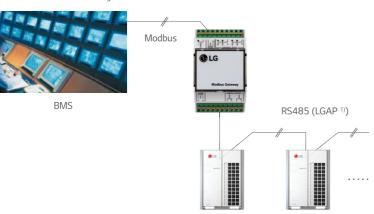
#### Features & Benefits

- Function
- Modbus RTU communication with Modbus master controller
- Modbus RTU slave (RS485) / 9,600 bps
- Applicable for MULTI V 5, ERV, Heating
- Size (W x H x D, mm) : 53.6 x 89.7 x 60.7
- Max. 16 IDUs with single module / Max. 64 IDUs with 4 modules
- Power : DC 12V
- No slave allowed in LGAP

#### **Installation Scene**

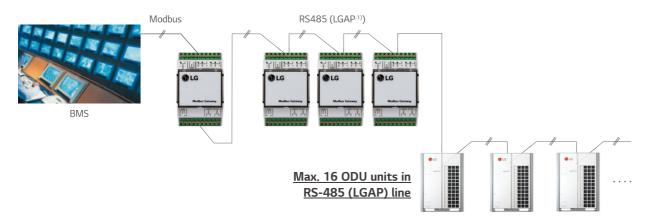
#### Single Module

Max. 16 indoor units with a single module



#### Multiple Module

Max. 64 indoor units with 4 modules in one Modbus communication line



<sup>1)</sup> LGAP is LG Protocol Max. 16 ODU units in RS-485

#### **Modbus Gateway Memory Map**

Baud Rate: 9,600 bps, Stop Bit: 1 stop bit, Parity: None Parity, Byte size: 8 bits

#### Coil Register (0 x 01)

NO	DATA BIT		FUNCTION	REGISTER	
NO.	AIR CONDITIONER	ERV / DX ERV	HYDRO KIT & THERMA V		REGISTER
1	Operate (On / Off)	Operate (On / Off)	Operate (On / Off)	0 : Stop / 1 : Run	
2	Auto Swing	Aircon Operate (On / Off)	Hot Water Mode (On / Off)	0 : Disable / 1 : Enable	
3	Filter Alarm Release	Filter Alarm Release 1)	Reserved	0 : Normal / 1 : Alarm Release	
4	Lock Remote Controller	Lock Remote Controller	Lock Remote Controller	0 : UnLock / 1 : Lock	
5	Lock Operate Mode	Lock Operate Mode 1)	Reserved	0 : UnLock / 1 : Lock	Register = N X 16 + ① (N = Indoor Unit Central
6	Lock Fan Speed	Lock Fan Speed 1)	Reserved	0 : UnLock / 1 : Lock	(N = Indoor Onit Central Address)
7	Lock Target Temp.	Lock Target Temp. 1)	Reserved	0 : UnLock / 1 : Lock	/ tddi 635)
8	Lock IDU Address	Lock IDU Address 1)	Reserved	0 : UnLock / 1 : Lock	
9	Reserved	Quick Ventilate	Reserved	0 : Disable / 1 : Enable	
10	Reserved	Energy Save	Reserved	0 : Disable / 1 : Enable	

<sup>1):</sup> This register value is applied 'DX Ventilator' ONLY.

#### Discrete Register (0 x 02)

	•				
NO.	DATA BIT			FUNCTION	REGISTER
	AIR CONDITIONER	ERV / DX ERV	HYDRO KIT & THERMA V	FONCTION	REGISTER
1	Connected IDU	Connected IDU	Connected IDU	0 : Disconnected / 1 : Connected	
2	Alarm	Alarm	Alarm	0 : Normal / 1 : Alarm	
3	Filter Alarm	Filter Alarm <sup>1)</sup>	Hot Water Only <sup>2)</sup>	<ul><li>0 : Normal /</li><li>1 : Alarm Hydro Kit</li><li>0 : Normal /</li><li>1 : Hot Water Only</li></ul>	Register = N X 16 + ① (N = Indoor Unit Central Address)
4	Reserved	Reserved	Target Temp. Select	0 : Air / 1 : Water	
5	Reserved	Reserved	Error Division 2)	0 : CH type error / 1 : BC type error	

<sup>1):</sup> This register value is applied 'DX Ventilator' ONLY. 2): This register value is applied 'Hydro Kit' ONLY.

#### Holding Register (0 x 03)

NO.		DATA BIT		FUNCTION	REGISTER
	AIR CONDITIONER	ERV / DX ERV	HYDRO KIT & THERMA V	FUNCTION	REGISTER
1	Operate Mode	Operate Mode	Operate Mode	O: Cooling, 1: Dehumidifying, 2: Fan, 3: Auto, 4: Heating Hydro Kit (Middle Temp. DHW) / AWHP O: Cooling, 3: Auto, 4: Heating Hydro Kit (High Temp. DHW))	Register = N X 20 + ① (N = Indoor Unit Central
2	Fan Speed	Fan Speed	Target Temp. DHW <sup>2)</sup>	1 : Low, 2 : Mid, 3 : High, 4 : Auto	Address)
3	Target Temp.	Target Temp. 1)	Target Temp. 2)	16.0 ~ 30.0 [°C] x 10	
4	Target Temp. Limit (Upper) Target Temp. Limit (Upper) Reserved 1		16.0 ~ 30.0 [°C] x 10		
5	Target Temp. Limit (Lower)	Target Temp. Limit 1) (Lower)	Reserved	16.0 ~ 30.0 [°C] x 10	
6	Reserved	Vent. Operate Mode	Reserved	0 : HEX, 1 : Auto, 2 : Normal	

#### Input Register (0 x 04)

NO.	DATA BIT		FUNCTION	REGISTER	
	AIR CONDITIONER	ERV / DX ERV	HYDRO KIT & THERMA V		REGISTER
1	Error Code	Error Code	Error Code	0 ~ 255 ** Please refer to the product error table.	
2	Room Temp.	RA Temp.	Room Temp.	-99.0 ~ 99.0 [°C] x 10	Register = N X 20 + ①
3	Pipe In Temp.	OA Temp. 1)	Water Inlet Temp.	-99.0 ~ 99.0 [°C] x 10	(N = Indoor Unit Central
4	Pipe Out Temp.	SA Temp. 1)	Water Outlet Temp.	-99.0 ~ 99.0 [°C] x 10	Address)
5	Reserved	Pipe In Temp. 1)	Sanitary Tank Temp.	-99.0 ~ 99.0 [°C] x 10	
6	Reserved	Pipe Out Temp. 1)	Solar Temp. 2)	-99.0 ~ 99.0 [°C] x 10	

This register value is applied 'DX Ventilator' ONLY.
 This register value is applied 'AWHP' ONLY.

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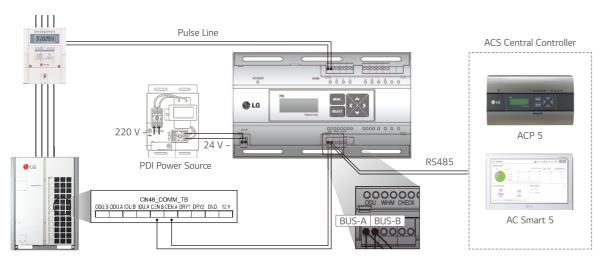
<sup>1):</sup> This register value is applied 'DX Ventilator' ONLY.
2): This value range can be between 0 ~ 127 [°C]. And it would be limited by upper & lower value according to the setting of remote controller.

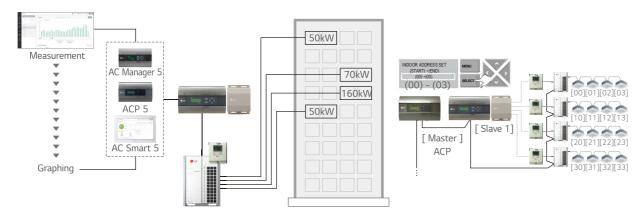


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**INTEGRATION DEVICE** 







- Note:

  1. Power cable and type could be different from this scene depending on the Outdoor unit's specification.

  2. Measured power consumption could be different between PDI and Watt meter.

  3. Applicable Central Controller: ACP 5, ACP LonWorks, AC Smart 5, AC Ez Touch
  (Combination: we recommend to connect separated watt meter for Outdoor units to have correct power distribution value)

# **PDI (Power Distribution Indicator)**

#### PQNUD1S40 (Premium, 8 ports) / PPWRDB000 (Standard, 2 ports)

PDI shows distributed power consumption of up to 128 indoor units.











Energy monitoring



#### **Features & Benefits**

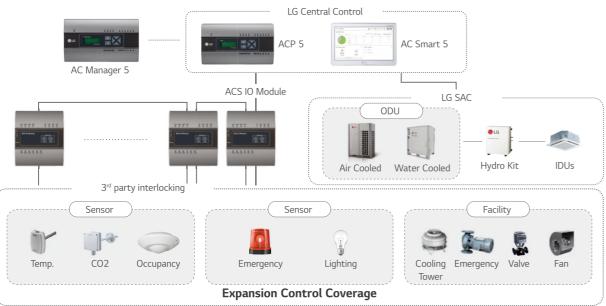
- Enables total and indoor power consumption monitoring.
- With LG central control connectivity, energy monitoring, energy savings operations and target usage setting functions are enabled.
- Enables gas consumption and electricity distribution.

MODEL NAME	PQNUD1S40	PPWRDB000	
Size (W x H x D, mm)	270 x 155 x 65		
Interfaceable Products	Air conditioner, ERV DX		
Maximum Number of Power Meters	EHP: 8 Watt meter GHP: 4 Watt meter / 4 Gas meter	EHP : 2 Watt meter GHP : 1 Watt meter / 1 Gas meter	
Maximum Number of Indoor Units	Multi V : 128		
Data Backup When Power Outage	0		
Power Input	PDI : AC 24V, Transformer : AC 220V		

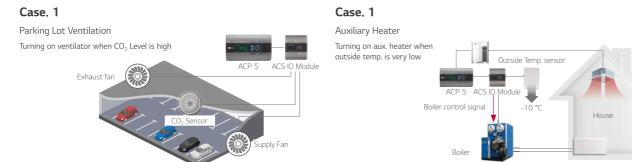
※ ○ : Applied, - : Not Applied

INTEGRATION DEVICE

# **ACS IO Module**



 $\ensuremath{\mathbb{X}}$  DI : Digital Input, DO : Digital Output, UI : Universal Input, AO : Analog Output



#### PEXPMB000

This module can be connected with ACP 5 or AC Smart 5 controller if additional I / O points such as DI / DO and AI / AO for 3rd party devices control and monitoring are needed.



#### Features & Benefits

- $\bullet$  Interlocking with  $3^{\text{rd}}$  party equipment, LG Central controller can make operation scenario with 3<sup>rd</sup> party equipment by ACS IO Module.
- ullet Control coverage is expanded. (Air conditioner only o Sensors, Fans, Pumps, Switches  $\cdots$ )

MODEL NAME		PEXPMB00	0	
Linkable Products		PACS5A000, PACP	5A000	
Communication	RS-485	1 ch		
	Digital Input	3 ports		
1/0	Digital Output	3 ports		
170	Universal Input 1)	4 ports		
	Analog Output	4 ports		
VALUE SPEC		MIN.	MAX.	
	NTC 10k	0.68kΩ	177kΩ	
	PT 1000	803Ω	1,573Ω	
Analog Input	Ni 1000	871.7Ω	1,675.2Ω	
	DC (Voltage)	OV	10V	
	DC (Current)	0mA	20mA	
Analog Output	-	OV	10V	
Digital Input	Binary Input (Non Voltage)	-	-	
Digital Output	Normal open	-	30VAC / 30VDC, 2A	

1) The type of UI (Universal Input) is selectable among Digital Input and Analog Input.

Note: ACS IO & ACU IO are not a replacement for Direct Digital Controller(DDC) or PLC.

#### **ACU IO Module**

#### PEXPMB300, PEXPMB200, PEXPMB100

This module can be connected with ACP 5 or AC Smart 5 controller if additional I / O points such as UIO / UI / UO for 3<sup>rd</sup> party devices control and monitoring are needed.



PEXPMB300





PEXPMB100

Features & Benefits

- Interlocking with 3<sup>rd</sup> party equipment LG Central controller can make operation scenario with 3<sup>rd</sup> party equipment by ACU IO Module.
- $\bullet$  Applicable devices are expanded. (Air conditioner only  $\rightarrow$  Sensors, Fans, Pumps, Switches ···)

MODULE NAME	PEXPMB300	PEXPMB200	PEXPMB100
Linkable Products	PACS5A000, PACP5A000		
Communication RS-485	1 ch	1 ch	1 ch
Digital Input	-	-	3 ports
Digital Output	2 ports	6 ports	-
Universal Input 1)	4 ports	-	6 ports
Analog Output	2 ports	4 ports	

	VALUE SPEC	MIN.	MAX.
Analog Input	DC (Voltage)	OV	10V
Analog Output	DC (Voltage)	OV	10V
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal Open	-	30VDC, 1A

# **Chiller Option Kit**

#### PCHLLN000

LG central controller 5 series with Chiller Option Kit can provide LG chiller remote control and cycle monitoring.



MODEL NAME	PCHLLN000
Monitoring Points	Evaporator status / Compressor status (Scroll, Screw, Centrifugal chiller only) / Condenser status / Generator status (Abs. chiller only)
On / Off	0
Target Temp. setting	0
Mode	Scroll chiller only
Schedule	0
Interfaceable Products	Scroll, Screw, Centrifugal, Absorption (LG Only)

#### ※ ○ : Applied, - : Not Applied

#### Installation Scene

- Chiller Option Kit installation of ACP, AC Smart should be conducted by a specialized installation service engineer.
- Chiller Option Kit installation can be achieved with a SD Card.
- The SD Card can install Chiller Option Kit in one ACP, AC Smart. Insert the SD Card in the ACP, AC Smart. If a backup SD Card is inserted, replace it with a Chiller Option Kit SD Card.







#### Cycle Display Example

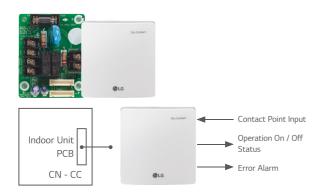


<sup>%</sup> O : Applied, - : Not Applied 1) The type of UI (Universal Input) is selectable among Digital Input and Analog Input.

# **DRY CONTACT**

# PDRYCB000

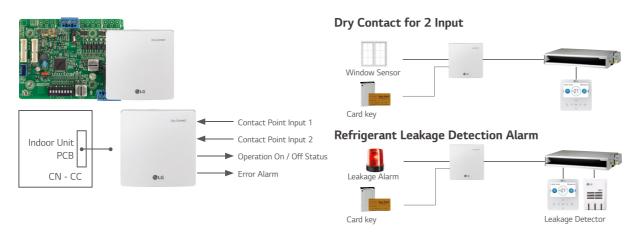
**INTEGRATION DEVICE** 



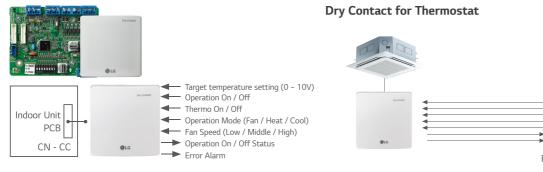
# Simple Dry Contact (1 input)



# PDRYCB400

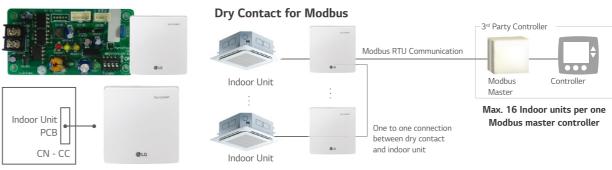


# PDRYCB320



 $\ensuremath{\ensuremath{\%}}$  Please contact our regional office to have full compatible room controller list.

# PDRYCB500



\* Please contact our regional office to check the compatibility with 3rd party room controller.

# Specification

Connection between an indoor unit and external devices to control various functions.

	MODE	L NAME	PDRYCB000	PDRYCB400	PDRYCB320	PDRYCB500
Case			0	0	0	0
Input Por	t		1	2	8	-
Universal	Input port		-	-	1	-
Comm. Pr	rotocol		-	-	-	Modbus RTU
Power			AC 220V	Connect	to Indoor unit PCB (CN_CC) :	DC 12V
		On / Off	0	0	0	0
IDU		Operation Mode	-	0	0	0
		Set Temp.	-	(Select & Fix)	(Select & Fix)	0
	IDU	Fan Speed	-	-	0	0
		Thermo-Off	-	(Select & Fix)	0	-
		Energy Saving	-	(Select & Fix)	-	-
		Lock / Unlock	-	(Select & Fix)	-	-
		On / Off	0	-	0	-
Control		DHW On / Off	-	-	0	-
Control	Heating	Thermo-Off	-	-	0	-
	rieating	Operation Mode	-	-	0	-
		Silent Mode	-	-	0	-
		Emergency Mode	-	-	0	-
		On / Off	0	-	-	0
		Operation Mode	-	-	-	0
	ERV	Aircon Mode	-	-	-	0
		Additional Mode	-	-	-	0
		Fan Speed	-	-	-	0
		Operation Status	0	0	0	0
Output		Error	0	0	0	0
		Room Temp.	-	-	-	0

※ ○ : Applied, - : Not Applied

- C : Applied, : Not Applied
   Note :
   Compatibility of PDRYCB320
   Can use with all types of aircon indoor units after 2010.
  (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)
   Can use with new single package AK-W model after 2020. 1Q
  (The previous version Single package is not compatible)
   Heating : 3 series AWHP split and Monobloc models 4 generation Hydro Kit

- 2. Compatibility of PDRYCB400

   Can use with all types of air conditioner indoor units after 2010.
  (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)

   Can use with new single package AK-W model after 2020. 1Q
  (The previous version Single package is not compatible)

   Can not use with AWHP, Hydro Kit models.

  3. (Select & Fix): This function is preset by rotary switch.

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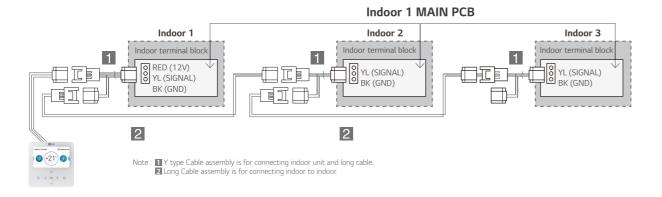
# **Group Control Wire**

# PZCWRCG3



MODEL NAME	PZCWRCG3
1 Y-type Cable	0.25m Length
2 Long Cable	9.6m Length

## Installation Scene



# **Remote Temperature Sensor**

# PQRSTA0

Sensor for detecting the room temperature.

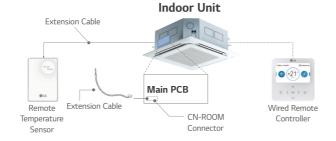


# Features & Benefits

- It detects the exact room temperature instead of indoor unit's air temperature sensor.
- Applied to Ceiling Mounted Cassette, Ceiling Concealed Duct, THERMA V and Hydro Kit.
- Extension cable (15m) is included

### Installation Scene

- Wire to the control box in the indoor unit by removing the existing thermistor and connect the extension cable its place.
- 2. Cut the extension cable to the appropriate length and connect the screw terminal of the remote sensor.



# **Zone Controller**

## **ABZCA**

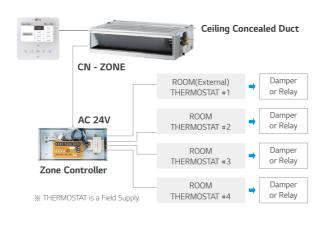
Controls air conditioning in up to 4 zones by external thermostat.

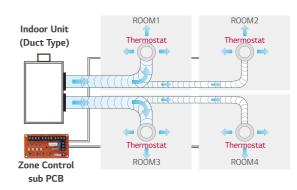


## **Features & Benefits**

- Controls different zones (up to 4 zones) by external thermostat (AC 24V)
- Maintain proper air volume of each zone
- Auto variation of dampers
- Auto control of fan speed and On / Off operation

## Installation Scene





# **IO Module**

### PVDSMN000

Interface module between the outdoor unit of system air conditioner and the external device.

# SH COC

# Features & Benefits

# Function

- Demand control
- Low noise operation
- Output outdoor or indoor unit operation status
- Output error status

### Description

 IO Module is communication interface module for connection between MULTI V 5 and external IO (Input / Output Module) devices.

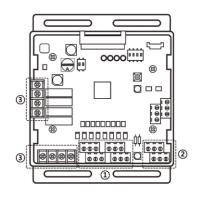
# **Models Applied**

- MULTI V IV, 5
- MULTI V WATER IV
- MULTI V S

Note : IO Module is not compatible for Multi V III and Multi V S R32.

# **Part Description**

- 1) Digital Input Part (DI: Dry Contact Input)
- Demand control by contact input (3 Step)
- Low Noise Operation input
- Priority Setting input: Setting the priority of demand control command (Capacity control for external signal from DDC vs Peak control by LG Central controller)
- Open : External signal has priority to central controller (Default)
- Close: Central controller has priority to external signal
- 2) Analog Input Part (AI : DC 0 ~ 10V)
- Demand control by analog input (10 Step)
- 3) Digital Output Part (DO: AC 250V, Max. 1A)
- Error status relay output
- Operation status relay output
- Valve control

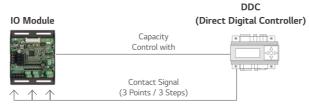


# **IO Module**

# **ODU Capacity Control**

Provides variable settings for ODU Capacity Control according to input method to reduce the power consumption. IO Module supports 2 types of input signal: Analog Inputs (0 ~ 10V, 10 steps) and contact signals (3 steps)

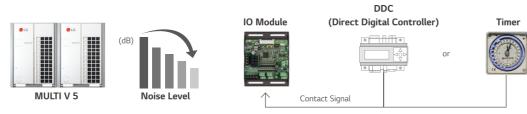




Range of Operation Rate AI 0 ~ 10V : 0%, 40% ~ 100% Contact signal (3 steps) : 0%, 40% ~ 80%

# **Low Noise Operation**

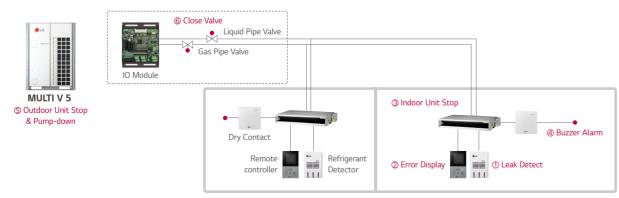
To reduce noise level, control outdoor unit's fan speed by dry contact input.



imes 8 HP (22.4kW) model, Sound power level can be changed by outdoor unit operation status and low noise operation input signal.

# Refrigerant Leakage Detection with Pump-down

For safety, IO module closes refrigerant valve during Pump-down operation.



% If the concentration of the refrigerant in the air exceeds 6,000 ppm more than 5 seconds, the function will be activated. (Refer to operation sequence which written in red, 1-6)

# Variable Water Flow Control Kit

# PWFCKN000 (MULTI V WATER IV)

Accessory for controlling the water flow.



## **Features**

### Function

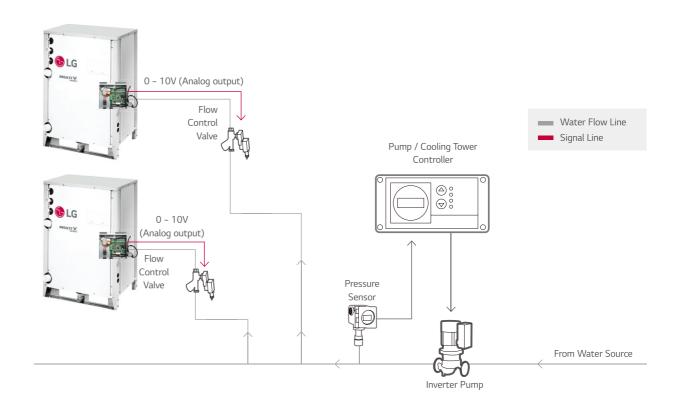
- Water pump or valve control (0 ~ 10V)
- Minimum output voltage setting available
- Operation, error output (AC 250V, Max. 1A)
- Dry contact input and analog output for demand control
   Digital output for operation, error status (AC 250V, Max. 1A)

### Description

- Water flow consumption reduction
- Pump electricity consumption reduction
- Including IO Module (Dry contact input, Analog input / output, Digital output)
- : Using Dry contact and variable water flow control function simultaneously.

### Installation Scene

- Flow Control Valve: Regulates the flow or pressure of a fluid, normally responding to signals generated by independent devices.
- Flow Meter : Measures mass flow rate of a fluid traveling through a tube.
- (The mass flow rate is the mass of the fluid traveling past a fixed point per unit time.)
- Pressure Sensor : Measures the pressure.



# **Low Ambient Kit**

# PRVC2

External integration module for cooling operation with -25 °C low ambient temperature.





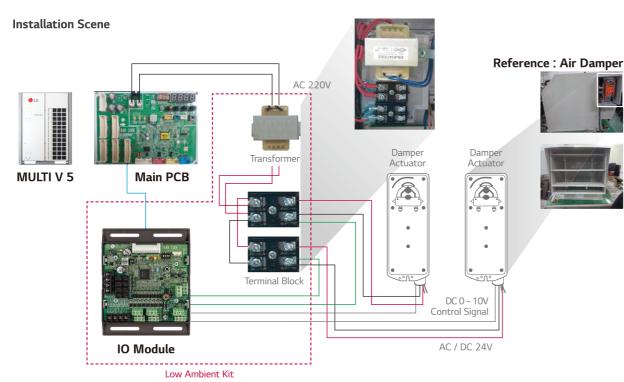
## **Features**

- $\cdot$  -25 °C Low ambient cooling operation by Low ambient kit and hood with damper (Analog output 0 ~ 10V)
- Demand control
- Low noise operation
- Output outdoor or indoor unit operation status (AC 250V, Max. 1A)
- Output error status (AC 250V, Max. 1A)

- Low ambient kit supports -25 °C cooling operation by making stable condensing pressure with reducing air flow rate from hood and damper control given 0 ~ 10V proportional to condensing pressure.
- Low ambient kit provides IO Module function.
- External snow hood and air damper are required for this item.
- Transformer and terminal block are included.

# **Models Applied**

• MULTI V 5



- 1. Damper Actuator can accept only DC 24V power input.
  2. Do not input AC power. Otherwise it will cause a serious damage.
  3. The IO Module can control maximum three actuators.
- 4. Case of one valve, the slave signal connector must not use. 5. The power (AC / DC 24V) and signal (DC 0 ~ 10V) line is recommended by AWG22 (1/32 in, (0.644 mm), 0.016  $\Omega$  / ft (0.053  $\Omega$  / m)).

# **Cool / Heat Selector**

# PRDSBM

Cooling only, heating only, and fan mode can be selected.

# **⊕** LG

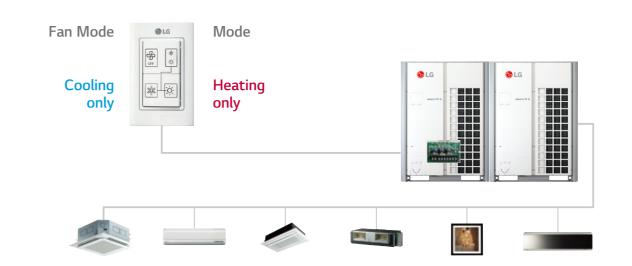
### Features

- Indoor unit mode control without central controller.
- Select operation mode : Cooling, Heating, Fan mode
- Mode lock for cooling & heating mixing error-proof during the change of season.

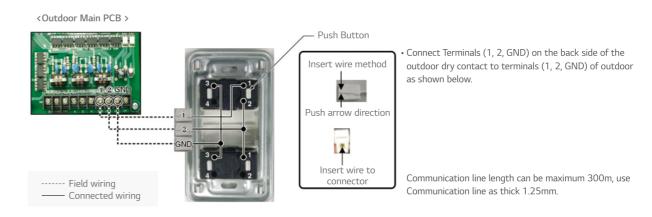
# **Models Applied**

• MULTI V 5 • MULTI V WATER II • MULTI V WATER IV • MULTI V IV • MULTI V S

• MUL TI V PLUS II, MULTI V PLUS • MULTI V WATER S



# Installation Scene



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**INTEGRATION DEVICE** 

# **AHU Kit**

A solution to connect LG's high efficiency system to the DX coil of an air handling unit for maximum energy savings.

# **COMMUNICATION KIT**







**CONTROL KIT** 

PRLK048A0

**EEV KIT** 

PRLK096A0

PRLK594A0

**€** LG

PAHCMR000 PAHCMS000

# **CONTROLLER MODULE**





PAHCMC000

PRLK396A0

# Specification

# **Control Application Kit**

TYPE	MODEL	DEL DIMENSIONS (MM)		(MM)	POWER SUPPLY	IP RATING	DESCRIPTION	
IIIFE	MODEL	W	Н	D	FOWER SUFFLI	IF KATING	DESCRIPTION	
Communication	PAHCMR000	300	300	155	1Ø, 220 ~ 240 V, 50 / 60 Hz	IP66	Return / Room air temperature control by DDC or LG individual / centralized controller.	
Kit	PAHCMS000	380	300	155	1Ø, 220 ~ 240 V, 50 / 60 Hz	IP66	Discharge air / Supply air temperature control by DDC or LG individual / centralized controller	
Controller	PAHCMM000	162	90	61	DC 12V	IP20	Main Controller module	
Module	PAHCMC000	108	90	61	DC 12V	IP20	Communication Controller module	
Control Kit	PAHCNM000	500	500	210	1Ø, 220 ~ 240 V, 50 / 60 Hz		Various AHU control functions with multiple DX coils (Maximum connectable ODU is 3 units)	

## **Expansion Application Kit**

TVDE	MODEL	DIMENSIONS (MM)			PIPE DIAMETER (MM)	CAPACITY INDEX RANGE	
TYPE MO	INIODEL	W	Н	D	LIQUID	CAPACITT INDEX RAINGE	
	PRLK048A0	217	404	83	12.7	3.6 ~ 28 kW	
FFW Wit	PRLK096A0	217	404	83	12.7	28.1 ~ 56 kW	
EEV Kit	PRLK396A0	349.5	345.5	180	19.05	56.1 ~ 112 kW	
	PRLK594A0	409.5	345.5	180	19.05	112.1 ~ 168 kW	

# **Communication Kit**

## High Energy Efficiency

LG's DX AHU solutions' superior performance provides a highly efficient heat source system.

- · High energy efficiency inverter system
- Large range of expansion application Kit : Max. 168 kW EEV Kit 1)
- Connected to various heat sources : MULTI V, MULTI V WATER, MULTI V S, SINGLE SPLIT

1) Maximum connectable EEV capacity for PAHCMR000, PAHCMC000 is 112 kW.



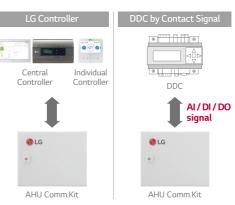
## **Diverse Options for Control**

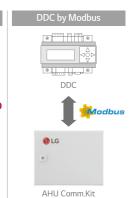
AHU communication kit can be connected to various control systems such as LG individual / central controller and DDC.<sup>1)</sup>

It can be directly connected to DDC without separated controller, so DDC can receive product control and monitor information through contact signal or Modbus protocol.

- LG Individual / Central controller supported
- LG controller stand alone or combination with DDC
- Direct wiring between DDC and AHU communication kit
- Embedded Digital I / O and Analog Input
- Modbus RTU protocol supported

1) DDC : Direct Digital Controller





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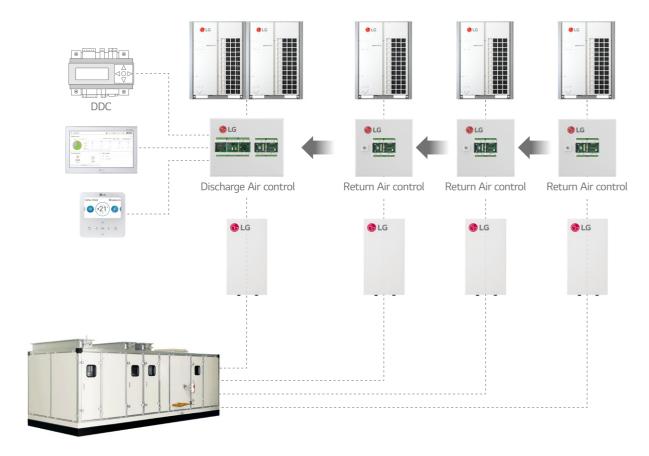
# **AHU Kit**

# **Communication Kit**

# Expandable System Design

LG AHU system can be a suitable solution for various sites due to its application flexibility and wide range of line up with large capacity models. According to the required capacity, a single or multiple module combination is possible due to the AHU communication kit's modular design.

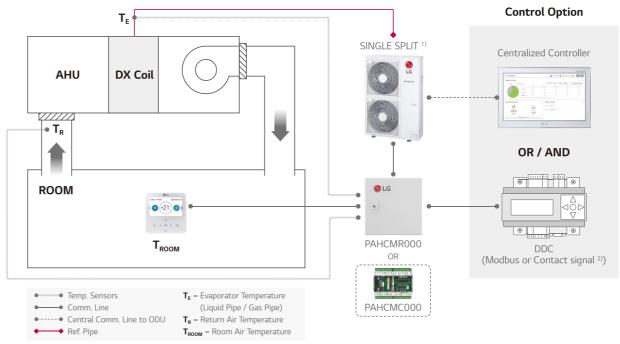
• Multiple module combination for large capacity AHU



# Communication Kit & Controller Module

### Single Split Application

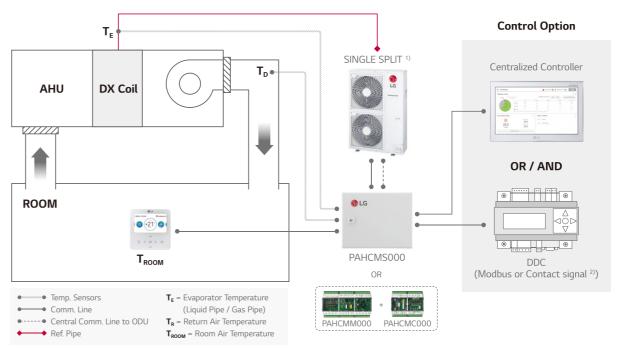
Single Split + Return / Room Air Temperature Control



1) PI485 (PMNFP14A1) is required for centralized controller.
2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC. Note: For more detail, please refer to the PDB.

## Single Split Application

Single Split + Discharge Air Temperature Control



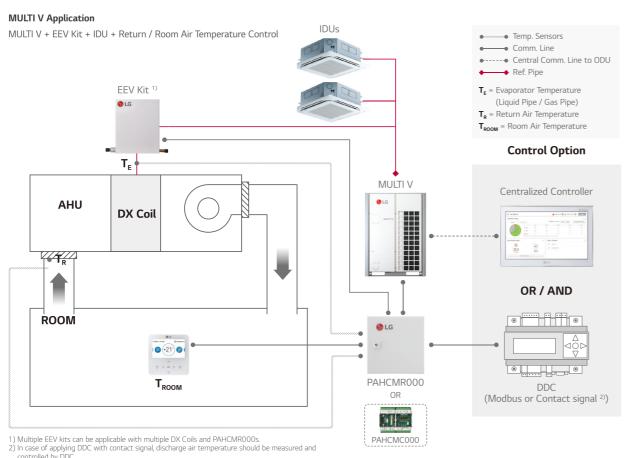
1) PI485 (PMNFP14A1) is required for centralized controller.

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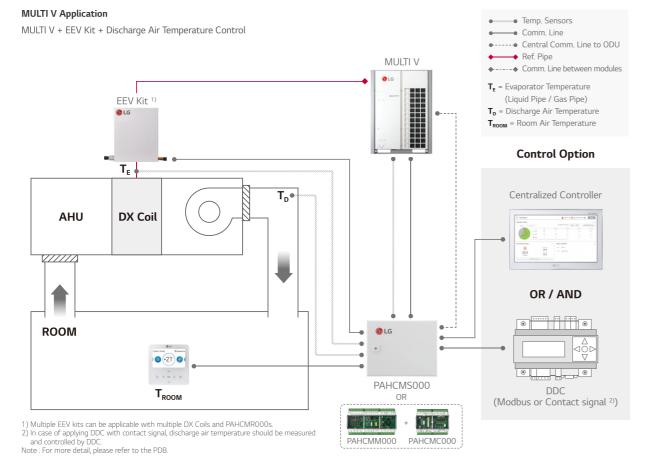
Note: For more detail, please refer to the PDB.

# **AHU Kit**

# Communication Kit & Controller Module



# controlled by DDC. Note: For more detail, please refer to the PDB.



## **Communication Kit Function**

### Communication with DDC via Contact Signal

	FUNCTION LIST	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 + PAHCMC000)	ТҮРЕ	NOTE
	Operation On / Off	On / Off	On / Off	Digital Input (Non Voltage)	-
	Operation Mode	Cooling / Heating	Cooling / Heating	Digital Input (Non Voltage)	Available operation mode can vary depending on the settings of Communication Kit
	Return (Room) Air Temperature 2)	16 ~ 30 °C	-	Analog Input (DC 0 ~ 10 V / 20mA)	-
Control 1)	Discharge Air Temperature 2)	-	-	-	Discharge air temperature should be controller directly by DDC using 'ODU Capacity Control
	Fan Speed 3)	-	High / Middle / Low	Digital Input (Non Voltage)	-
	Forced Thermal	On / Off	-	Digital Input (Non Voltage)	-
	ODU Capacity	-	10 ~ 100%	Analog Input (DC 0 ~ 10 V / 20mA)	-
	Emergency Stop	-	Stop / Normal	Digital Input (Non Voltage)	-
	Operation	On / Off	On / Off	Digital Output (Max.: DC 30 V / 1 A, AC 250V / 1 A)	For PACHMR000, dip sw1-3 DO Type should be set 'Off' (Status), In this case, 'fan speed' cannot be monitored by DO ports
	Operation Mode	-	-	-	It needs to be checked through control signal
Monitor	Fan Speed	High / Middle / Low	High / Middle / Low	Digital Output (Max.: DC 30 V / 1 A, AC 250V / 1 A)	For PACHMR000, dip sw1-3 DO Type should be set 'On' (Fan Mode) In this case, 'On / Off, defrost, error Status' cannot be monitored by DO ports
	Defrost Operation	Defrost / Normal	Defrost / Normal	Digital Output (Max. : DC 30 V / 1 A, AC 250V / 1 A )	For PACHMR000, dip sw1-3 D0 type should be set 'OFF' (Status),
	Error Alarm	Error / Normal	Error / Normal	Digital Output, Relay C contact (Max.: DC 30 V / 1 A, AC 250V / 1 A)	In this case, 'fan speed' cannot be monitored by DO ports
	Compressor On / Off	-	On / Off	Digital Output, (Max. : DC 30 V / 1 A, AC 250V / 1 A )	-

<sup>1)</sup> Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal.

### Communication with DDC via Modbus protocol

Communication with DDC via Modbus protocol								
	FUNCTION LIST	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 + PAHCMC000)	NOTE				
	Operation On / Off	On / Off	On / Off					
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan					
	Return (Room) Air Temperature	16 ~ 30 °C	-					
Control 1)	Discharge Air Temperature <sup>2)</sup>	-	0	Dip SW1-2 Discharge Temp. Control Type should be set 'On' Standard II: 16 ~ 30 °C Standard III 4): 12 ~ 50 °C				
	Fan Speed 3)	High / Middle / Low	-					
	Forced Thermal On / Off	-	-					
	ODU Capacity Control <sup>2)</sup>	-	10 ~ 100%	Dip SW1-2 Discharge Temp. Control Type should be set 'On'				
	Emergency Stop	-	-					
	Operation	On / Off	On / Off					
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan					
	Return (Room) Air Temperature	0	-	Corresponding air temperature sensor				
Monitor	Discharge Air Temperature	-	0	connected to AHU Comm.Kit is required				
IVIOITILOI	Fan Speed	High / Middle / Low	High / Middle / Low					
	Defrost Operation	Defrost / Normal	Defrost / Normal					
	Error Alarm	Error / Normal, Error code	Error / Normal, Error code					
	Compressor On / Off	On / Off	On / Off					

<sup>2)</sup> The range of temp, is differ depending on the type of the controller.

3) To control fan speeds, DO port of the fan speed status should be connected to the fan control panel.

Note: For more detail information, please refer to the product data book.

<sup>\*\*</sup> O : Applied, - : Not Applied

1) Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal.

2) In case of PAHCMS000, control type between "Discharge Air Temperature" and "ODU Capacity Control" is selectable.

3) To control fan speeds, DO port of the fan speed status should be connected to the fan control panel.

4) Standard III wired remote controller after version 2.10.5a.

Note: For the Modbus memory map and more detail information, please refer to the product data book.

# **AHU Kit**

# **Communication Kit Function**

# With LG Control System (Individual & Centralized Controller)

	FUNCTION LIST	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 + PAHCMC000)	NOTE
	Operation On / Off	On / Off	On / Off	-
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	Available operation mode can vary depending on the settings of Communication Kit
	Return (Room) Air Temperature 2)	16 ~ 30 °C	-	-
Control 1)	Discharge Air Temperature <sup>2)</sup>	-	0	Standard III : 16 ~ 30 °C Standard III <sup>4)</sup> : 12 ~ 50 °C Central Controllers : 12 ~ 50 °C
	Fan Speed <sup>3)</sup>	High / Mid / Low	High / Mid / Low	To control the AHU fan, dip switch 1-3 'DO type' should be set 'On (Fan Speed)' (PAHCMR000)
	Operation	On / Off	On / Off	-
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	-
	Return (Room) Air Temperature	0	-	-
Monitor	Discharge Air Temperature		0	Standard II : 11 ~ 39.5 °C Standard III ⁴) : 0 ~ 100.0 °C Central : -50.0 ~ 100.0 °C
	Fan Speed	High / Middle / Low	High / Middle / Low	-
	Defrost Operation	On / Off	On / Off	Only with Individual Controller
	Error Alarm	Error Code	Error Code	Error code will be displayed on the screen
	Compressor On / Off	On / Off	On / Off	Only with Individual Controller

- O: Applied, -: Not Applied
   Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal.
   The range of setting temperature is different depending on the type of the controllers. And operation may different from setting range.
   To control fan speeds, DO port of the fan speed status should be connected to the fan control panel.
   Standard III wired remote controller after version 2.10.5a.
   Note: For more detail information, please refer to the product data book.

# Compatibility with LG HVAC Controllers

	INDIVI	DUAL CONTR	ROLLER		CENTRA	LIZED CONT	ROLLER		BMS GATEWAY	PDI
	PREMIUM	STANDARD III	STANDARD II	AC EZ	AC EZ TOUCH	AC SMART 5	ACP 5	AC MANAGER 5 1)	ACP LONWORKS	PREMIUM STANDARD
CONTROLLER	255 ] == 0 0	**************************************	⊕1.5 (m)	0.00 0.00	10 to		**************************************	• •		- = =×
Model no.	PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001	PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PACM5A000	PLNWKB000	PQNUD1S40 PPWRDB000
PAHCMR000	0	0	0	0	0	0	0	0	0	0
PAHCMS000	-	O 2)	0	-	-	0	0	0	-	-

- O: Applied, -: Not Applied
   AC Manager 5 is an integrator, so the installation with AC Smart 5 or ACP 5 is required.
   Set temperature range of this model shall be extended April, 2020.
   Note: 1. Dry contact for indoor unit (PDPXYCB000 / 400 / 300 / 500) is not applied.
   For more details, please refer to the product data book.

# **Outdoor Unit Compatibility**

## For Small Size Application (~ 15kW) - Single Split

ТҮРЕ	MODEL	UUA1 (2.5 ~ 5.0 KW) 1)	UUB1 (5.0 ~ 8.0 KW) 1)	UUC1 (7.1 – 10.0 KW) 1)	UUD1 / UUD3 (10.0 ~ 15.0 KW) <sup>1)</sup>
Communication Kit	PAHCMR000 (PAHCMC000)	-	0	0	0
(Controller Module)	PAHCMS000 (PAHCMM000 + PAHCMC000)	-	0	0	0
Control Kit	PAHCNM000	-	-	-	-

<sup>1)</sup> When connecting to Single Split outdoor unit, please check the compatibility to the regional sales office.

# For Medium-Large Size Application (~ 672 kW) - MULTI V

TYPE	MODEL		MUL	MULTI V WATER			
TIPE	MODEL	5	IV	Ш	S	IV	ll l
Communication Kit	PAHCMR000 (PAHCMC000)	0	0	0	0	0	0
(Controller Module)	PAHCMS000 (PAHCMM000 + PAHCMC000)	0	0	0	0	0	0
Control Kit	PAHCNM000	0	0	0	0	0	0

# **EEV Kit Compatibility**

EEV KIT		TY INDEX W)		U APPLICATION KI M CONNECTABLE I	CONNECTION BY ODU SYSTEM			
MODEL			PAHCMR000	PAHCMS000	PAHCNM000	MUI	MULTI V	
	MIN.	MAX.	(PAHCMC000)	I (PAHCMIMIOOO + I		HEAT PUMP	HEAT RECOVERY	SPLIT
PRLK048A0	3.6	28	○ (1)	○ (1)	○ (6)	0	0	-
PRLK096A0	28.1	56	0 (1)	0 (1)	○ (6)	0	O (Max. 33.7 kW)	-
PRLK396A0	56.1	112	○ (1)	○ (1)	○ (6)	0	-	-
PRLK594A0	112.1	168	-	○ (1)	○ (3)	0	-	-

- % O: Applied, -: Not applied
  Note 1. Table of the outdoor unit compatibility is based on European regional model
  2. When connecting outdoor units in other areas, please check whether they are compatible or not
  3. Expansion application kit compatibility is based on capacity index of the system, it may changed according to system design condition.

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# **AHU Kit**

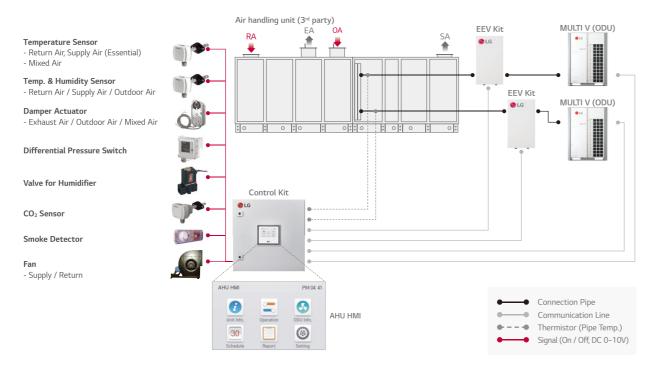
# Control Kit

# Field Supplied Item

Field Supplied Item		
LIST	REQUIRED SPECIFICATION	APPLY LOCATION
Temperature / Humidity Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Temperature range : -40 °C ~ 70 °C - Humidity range : 0 ~ 95 % RH	Supply air duct, Return air duct, Outdoor air duct
Temperature Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Temperature range : -50 °C ~ 50 °C	Supply air duct, Return air duct, Mixed air duct
Damper Actuator	- Power: AC 24 V - Input / output signal: DC 0 ~ 10 V - Torque: 15 N·m - Operation time: 150 s - Rotation Angle: 90°	Outdoor air damper, Exhaust air damper, Mixed damper
Filter Differential Pressure Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Range: 0 ~ 1,000 Pa	Filter
	- Switch type : Relay open / close	
Static Pressure Sensor	- Power: AC 24 V - Output signal: DC 0 ~ 10 V - Range: 0 ~ 1,000 Pa	Supply air duct
CO₂ Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Range : 0 ~ 2,000 ppm	Return air duct
Smoke Detector	- Power : AC 24 V - Type : Contact	Return air duct

# Various Control with Control Kit – Multiple MULTI V + EEV Kits

Field Supplied Item



# **Water Communication Module**

# PAHCMW000

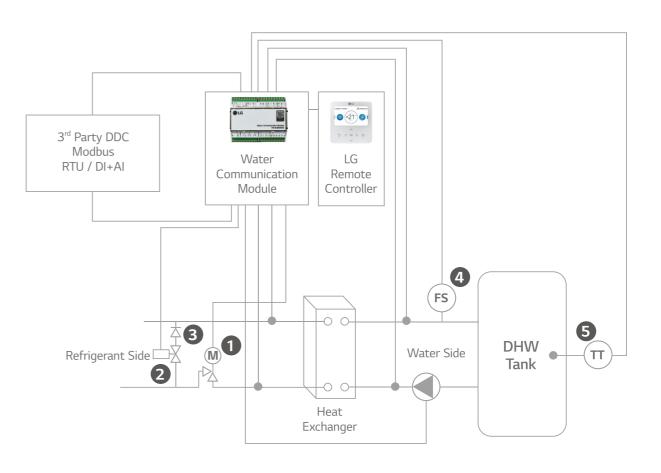
This module is intended to connect 3<sup>rd</sup> party plate heat exchanger to LG outdoor unit with the ability to control water temperature from 3<sup>rd</sup> party DDC or LG remote controller.



### Overview

Interlocking with 3rd parties can make various solution with LG Multi V outdoor unit.

- 1. EEV
- 2. Solenoid Valve (NC)
- 3. Non-Return Valve
- 4. FS: Flow Switch
- 5. TT : DHW Temperature Transmitter



<sup>• 3</sup>rd party solenoid, non-return valve, heat exchanger, flow switch and DHW temperature transmitter (Optional) must be purchased separately. (Field supplied items)

CONTROL SOLUTIONS 304 | 305

# **Water Communication Module**

# **Features & Benefits**

Interlocking with 3<sup>rd</sup> parties can make various solution with LG MULTI V outdoor unit.

# Interlocking with 3rd Party Equipment

CONTENTS	COM	NNECTION PORT	FUNCTION	
RS485	CH1 (A+ / B-)	Module Comm. Port	Communication Port Modbus	
K5465	CH2 (A+ / B-)	IDU Comm. Port	Communication with Multi V Outdoor	
	UI1	Flow Switch	Flow Switch Input by 3rd party	
UNIVERSAL INPUT	UI2	0 ~ 10V Set Temp.	Target Temp. Setting	
(Cooling / Heating Setting)	UI3	Cooling Thermostat Signal	Thermostat Cooling Signal	
	UI4	Heating Thermostat Signal	Thermostat Heating Signal	
	UI1	Flow Switch	Flow Switch Input by 3rd party	
UNIVERSAL INPUT	UI2	0-10V Set Temp.	Target Temp. Setting	
(DHW Only)	UI3	DHW Temperature Transmitter 0 ~ 10V	Measured Water Temp. Input by 3rd party 0 ~ 10 V sensor	
	UI4	DHW Thermostat Signal	DHW Heating Signal	
NTC	RI1	Water Inlet Sensor	PHEX Water Inlet Sensor	
NIC	RI2	Water Outlet Sensor	PHEX Water Outlet Sensor	
REMO	+12V / SIG / GND	LG Remote Controller	-	
SINGLE	Reserved	-	-	
	D01	Defrost / Mode	Output for defrost signal and / or cool mode	
DIGITAL OUTPUT	D02	Pump	Output signal for pump on / off	
	D03	Bypass	Output signal for PHEX Bypass Valve	
NTC	RI3	Thermistor Pipe In	PHEX Ref. Inlet Pipe Sensor	
NIC	RI4	Thermistor Pipe Out	PHEX Ref. Outlet Pipe Sensor	
EEV	+12V/1/2/3/4	Expansion Valve	EEV Control	

# Compatibility & Accessory

# EEV (LG MODEL)

MODEL	CAPACI	TY (KW)	PAHCMW000
MODEL	MIN.	MAX.	PAHCIMWOOO
PAEEVC000	3.6	28	HP / HR
PRLK048A0	3.6	28	HP / HR
PRLK096A0	28.1	56	HP

Vote:

.e. . ter communication module can accept plate heat exchangers from 3, 6 to 112 kW for combination with Multi V Outdoor units.

# LG Controllers

	INDIVIDUAL CONTROLLER	CENTRALIZED	CONTROLLER	DRY CONTACT
CONTROLLER	HEATING STANDARD III	AC EZ TOUCH	AC SMART 5	DRT CONTACT
	PREMTW101	PACEZA000	PACS5A000	PDRYCB000

# Specification for Field supply item

• The 3<sup>rd</sup> party can select the for best usable version

# Solenoid valve for Bypass

CAPACIT	ΓY (KW)	EEV TYPE	SYSTEM	KV VALUE OF SOLENOID AND	PIPE SIZE
MIN.	MAX.	EEVITPE	STSTEIN	NON-RETURN VALVE	PIPE SIZE
2.6	20	PAEEVC000	HP / HR	0.95	3 / 8" / 9.52mm
3.0	3.6 28 ——		nr / nk	0.93	3/0/9.3211111
28	56	PRLK096A0	HP	1.9	1 / 2" / 12.7mm

# Flow switch

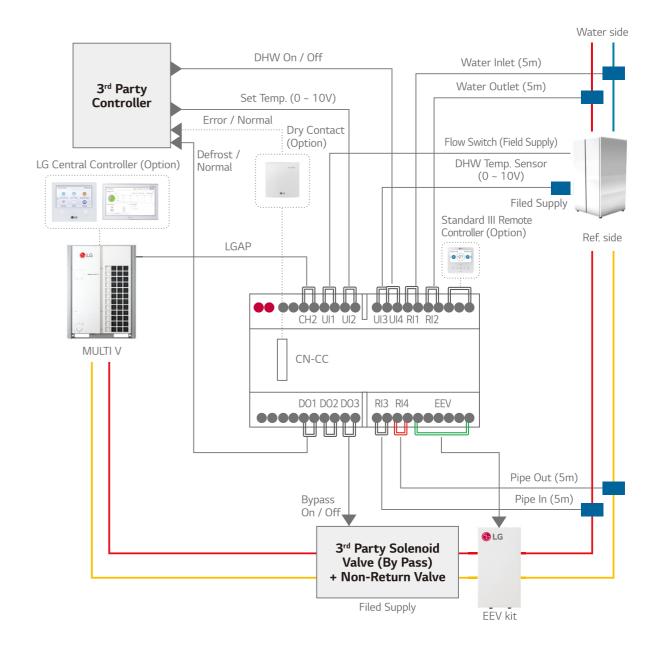
• The nominal flow and cut of flow can be calculated using the values below.

CONTROLLER	NOMINAL FLOW	FLOW SWITCH CUT OFF
L / min*kW	3.29	1.23

<sup>\*</sup> Example : ODU nominal Cooling Capacity 28 kW, 28 x 3.29 = 92.12 L / min. nominal flow, 28 x 1.23 = 34.44 L / min. flow switch cut off

# **Installation Scene with Contact Connection**

Contact signal + DHW Only Setting



CONTROL SOLUTIONS 306 | 307

# **Water Communication Module**

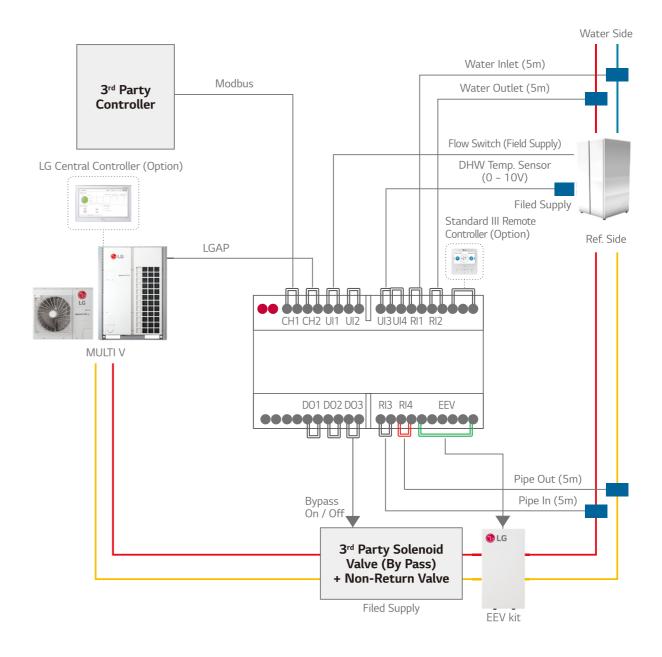
# **Installation Scene with Contact Connection**

Contact signal + Heating / Cooling Setting

# Water Side Pump Heating On / Off Cooling On / Off 3rd Party Water Inlet (5m) Set Temp. (0 ~ 10V) Controller Water Outlet (5m) Error / Normal : Dry Contact (Option) Defrost / LG Central Controller (Option) Normal Flow Switch (Field Supply) Standard III Remote Controller (Option) LGAP 0 (21) 0 CH2 UI1 UI2 UI3 UI4 RI1 RI2 Ref. Side MULTI V CN-CC RI3 RI4 DO1 DO2 DO3 Pump On / Off Pipe Out (5m) Bypass On / Off Pipe In (5m) **LG** 3<sup>rd</sup> Party Solenoid Valve (By Pass) + Non-Return Valve Filed Supply EEV kit

# Installation Scene with Modbus / LG Control (Optional) Connection

Modbus + DHW Only Setting

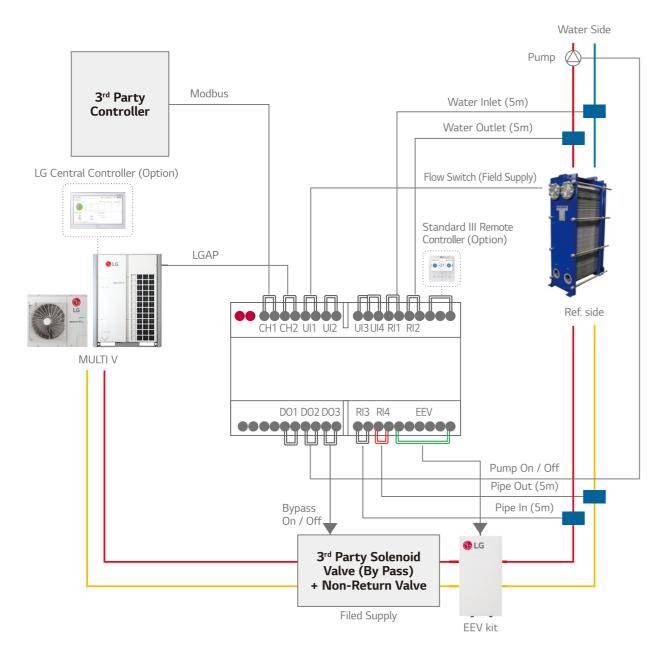


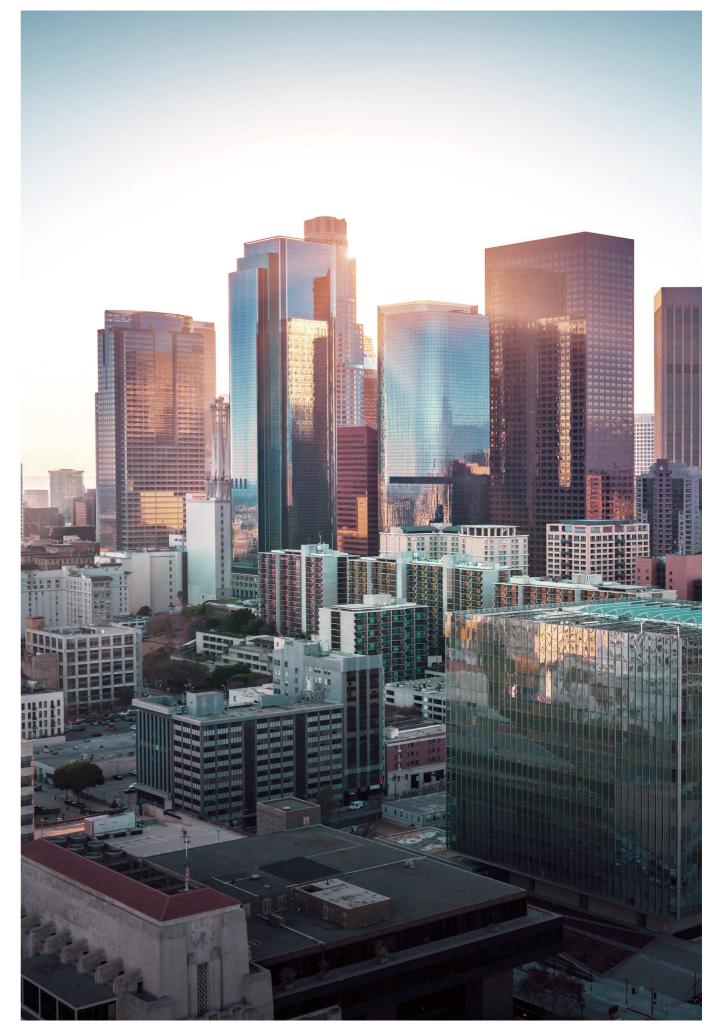
**PROPOSAL CASE** 

# **Water Communication Module**

Installation Scene with Modbus / LG Control (Optional) Connection

Modbus + Heating / Cooling Setting



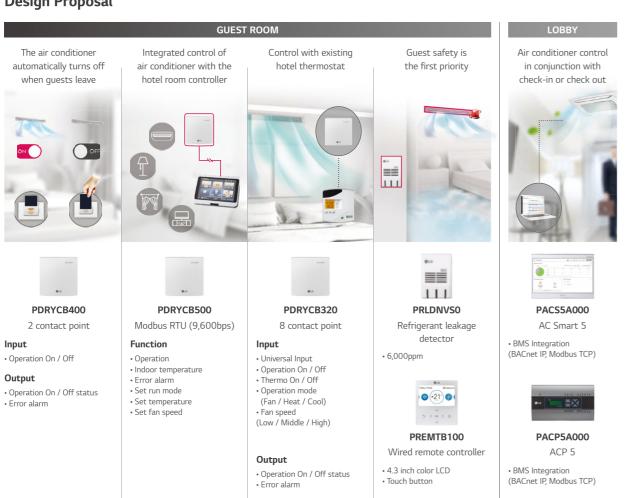


**PROPOSAL** 

# **Hotel Control Solution**



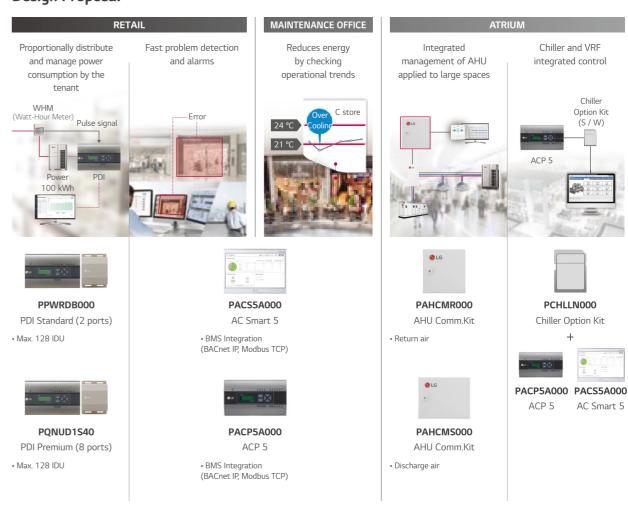
# **Design Proposal**



# **Shopping Mall Control Solution**



# Design Proposal



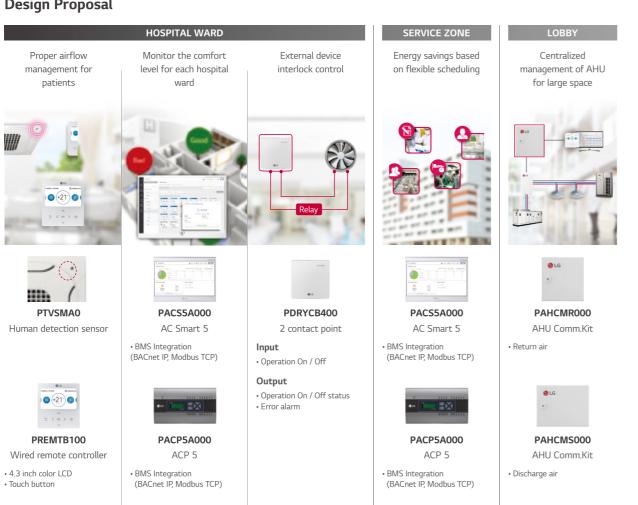
CONTROL SOLUTIONS 312 I 313

**PROPOSAL** 

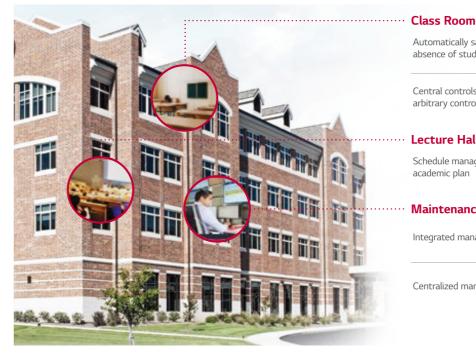
# **Hospital Control Solution**



# **Design Proposal**



# **Academic Institution Control Solution**



Automatically save energy in the absence of students

Central controls prevent students from arbitrary control

# **Lecture Hall**

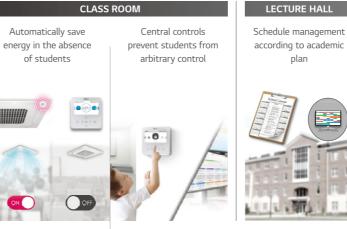
Schedule management according to academic plan

## **Maintenance Office**

Integrated management of distributed buildings

Centralized management with multiple interfaces

# **Design Proposal**









Human detection sensor



PREMTB100 Wired remote controller

• 4.3 inch color LCD

PACS5A000 AC Smart 5

PACP5A000



(BACnet IP, Modbus TCP) (BACnet IP, Modbus TCP) PACM5A000 AC Manager 5

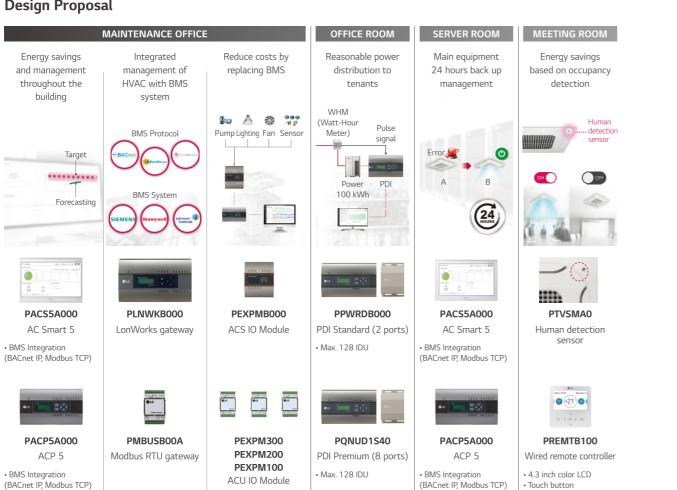
**PROPOSAL** 

CAS

# **Office Control Solution**

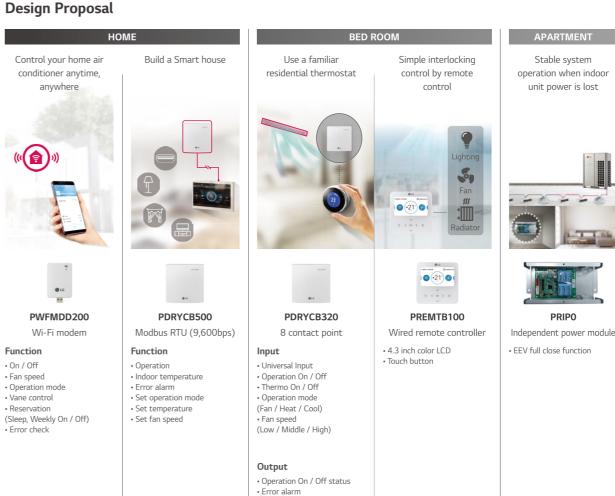


# **Design Proposal**



# **Residential Control Solution**





CONTROL SOLUTIONS 316 I 317

# 318-339

# **ACCESSORIES**



ACCESSORIES 318 I 319

**MECHANICAL** 

П

# **Cassette Panel**

The Independent Vane Operation makes desired and comfortable air flow.



# Model Name & Applied Products

4 Way Cassette (Mini, 570x570)
PT-QAGW0
PT-QCHW0
PT-UQC

# 2 Way Cassette

PT-USC

# 1 Way Cassette (Grill Type) PT-UAHGO / PT-TAHGO (Glossy) PT-UAHWO / PT-TAHWO (Non-Glossy) PT-UPHGO / PT-TPHGO (Glossy)

### 1 Way Cassette (Air Purification) PT-UPHG0 / PT-TPHG0

# **Key Features**

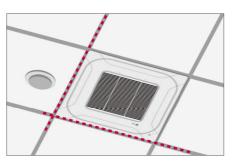
- · Independent vane operation uses separate motors, making it possible to control all 1, 2, and 4 vanes independently.
- The detachable corner design makes it easy to adjust the hanger during installation and to check for leakages in the drain pipe and refrigerant pipes.

# Compact and Stylish Design

- New 4 way cassette panel adapted unibody shape and matching with into the ceiling.
- Panel size is fit into the ceiling tile.







# Specification

Suction Color		Color		Weight	Dime	nsion (	mm)		Applied	l Model	Capacit	y (kW)*		
ı	Model	Туре	(RAL)	Gloss	loss (kg)	w	н	D	Single Split		Multi Split		Multi V	
		.,,,,	(,		(5)	•••			R32	R410A	R32	R410A	R32	R410A
	PT-QCHW0	Grill	Morning Fog (RAL 9001)	Χ	3.0	620	35	620	2.5-5.0	2.5-5.0	1.5-5.3	1.5-5.3	1.6-6.2	1.6-6.2
4 Way	PT-UQC	Grill	Morning Fog (RAL 9001)	X	3.0	700	22	700	2.5-5.0	2.5-5.0	1.5-5.3	1.5-5.3	1.6-6.2	1.6-6.2
	PT-QAGW0	Grid	White (RAL 9003)	Χ	2.9	620	35	620	2.5-5.0	2.5-5.0	1.5-5.3	1.5-5.3	1.6-6.2	1.6-6.2
2 Way	PT-USC	Grill	Morning Fog (RAL 9001)	X	4.7	1,100	28	690					2.8-7.1	2.8-7.1
	PT-UAHG0	Grill	White (RAL 9003)	О	3.9	1,160	34	500			2.6-3.5	2.6-3.5	2.2-3.6	2.2-3.6
	PT-TAHG0	Grill	White (RAL 9003)	0	4.8	1,480	34	500			2.6-3.5	2.6-3.5	5.6-7.1	5.6-7.1
1 Way	PT-UAHW0	Grill	White (RAL 9003)	Χ	3.3	1,100	34	500			2.6-3.5	2.6-3.5	2.2-3.6	2.2-3.6
1 vvay	PT-TAHW0	Grill	White (RAL 9003)	X	4.5	1,420	34	500			2.6-3.5	2.6-3.5	5.6-7.1	5.6-7.1
	PT-UPHG0	Grill	White (RAL 9003)	Ο	4.1	1,160	34	500			2.6-3.5	2.6-3.5	2.2-3.6	2.2-3.6
	PT-TPHG0	Grill	White (RAL 9003)	0	4.9	1,480	34	500			2.6-3.5	2.6-3.5	5.6-7.1	5.6-7.1

<sup>\*</sup> Based on cooling capacity \* O : Applied. - : Not applied

# **Dual Vane Cassette Panel**



Model Name PT-AAGW0 PT-AFGW0

# **Key Features**

80 - d - l				Function		
Model	Dual Vane	Wi-Fi	Floor Temperature Sensor	Air Purification	Elevating Grille	Human Detection Sensor
PT-AAGW0	0	Optional	Optional	X	Χ	Optional
PT-AFGW0	0	Optional	Optional	Optional (Dust Sensor, Tact Switch)	Χ	Optional

# Specification

Model	Suction	Color	Class	Weight		Dimension (mm)		
Wodet	Туре	(RAL)	Gloss	Gloss (kg)		Н	D	
PT-AAGW0	Grid	White (RAL 9003)	-	7.1	950	35	950	
PT-AFGW0	Grid	White (RAL 9003)	÷	7.5	950	35	950	

## Air Purification Kit

Model	lmage	Model name	Dielectric Dust collecting filter	Photocatalytic Deodorizing filter	HVPS	lonizer
Air cleaning kit		PTAHMP0	0	0	0	0
cicumity Ni		PTAHTP0	0	0	0	0

# **Cassette Cover**

Cover in case of exposed cassette installation.



# **Key Features**

- Specially designed for indoor unit
- Covers the side area of cassette
- Gives elegant looks
- Light weight

# Specification

•								
Model	Front Pa	1	Weigh	nt (kg)	Dime	ensions (	(mm)	
wodet	FIOIIL Pai	net	NET	Gross	W	Н	D	
PTDCM	PT-AAGW0 /	TB	5.9	8.8	1,157	1,157	268	
PIDCIVI	PT-AFGW0	TA	5.9	8.8	1,157	1,157	310	
DTDCO	DT LIOC	TR	5.0	7.2	907	907	268	
PTDCQ	PT-UQC	TO	5.0	72	907	907	310	

# Model Name

PTDCM / PTDCQ

# **Applied Products**

4 Way Cassette (for chassis TA, TB, TQ, TR)  $\,$ 

### **Included Parts**

- Cover A, Cover B
- Screws
   Installation Manual



Cover C (4 units)



Cover D (4 units)

• Cover C, Cover D

Cover B (4 units) Screw (32 units)

Installation Manual

OIIII)

ACCESSORIES 320 | 321

# CO<sub>2</sub> Sensor

CO<sub>2</sub> sensor in ventilation system.



# **Model Name** AHCS100H0

# **Applied Products**

LZ-H025GBA4

LZ-H035GBA5 / LZ-H050GBA5 LZ-H080GBA5 / LZ-H100GBA5 LZ-H150GBA5 / LZ-H200GBA5

### **Applicable Products**

LZ-H050GXN0 / LZ-H080GXN0 LZ-H100GXN0 / LZ-H050GXH0 LZ-H080GXH0 / LZ-H100GXH0

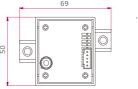
# **Key Features**

- Applied Model : ERV (Embeded), ERV DX (Option)
- Supply voltage : DV12V ± 5%
- Output : 0.6 ~ 4.4V (Linear output, 240 ~ 1,760 ppm CO<sub>2</sub>)
- Accuracy : ± 10% (2 days after installation)

### Description

- The product is especially designed to detect CO<sub>2</sub>.
- This model requires Standard III Wired Remote Controller for display.

### Dimensions (Unit:mm)



ERV with CO2 Concentration Control





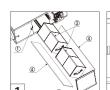
# **Key Application** Windows Windows Closed 2,500 Without ERV CO<sub>2</sub> Sensor (AHCS100H0) Embedded inside of ERV Standard III Wired

# How to Install

- 1. Remove a screw on the service cover. Pull the service cover fixing bracket (①), then remove the service cover(②). Remove two elements (③) and two
- 2. Install the sensor with two screws.
- 3. Remove a screw, then remove the right side of element rail (⑤).
- 4. Press the holder (6) into the hole to fix the CO<sub>2</sub> sensor cable (7).
- 5. Connect the wire terminal to the CN-CO<sub>2</sub> port of PCB.
- \* Airflow can be controlled by concentration of CO2, after setting automatic operation mode at remote controller.

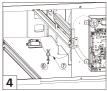
Remote Controller

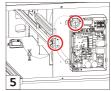
\* Use the screwdriver whose total length is less than 250mm.

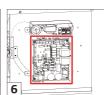












# **Refrigerant Leakage Detector**

R410A refrigerant leakage detector ensures room safety.



# Model Name

# PRLDNVS0

# **Applied Products**

Multi V IV Heat Pump & Heat Recovery Multi V Water IV

## **Key Features**

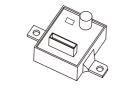
- This detector senses refrigerant leakage when the refrigerant concentration exceeds 6,000ppm. (The green and red LED lights blink simultaneously.)
- · Alarm is "on" when refrigerant leaks out more than
- 6,000ppm for 5 seconds. If it is reduced less than 6,000ppm for 5 seconds, alarm is "off".
- When the alarm of the refrigerant leak detector is switched on the user must ventilate the room until the alarm is disabled.
- $\bullet$  The detector has to be installed inside the room and it should be installed 300 ~ 500mm above the floor.

# Specification

Parts	Specifi	ication
	Rated Voltage (V)	DC 5.0 ± 5%
	Dimensions (W x H x D, mm)	31 x 44 x 20
	Weight (g)	22
	Detectable Refrigerant	R410A
Sensor	Detected concentration (ppm)	0 / 6,000 Alarm Off / On
	Operating temperature range (oC)	-10 ~ 50
	Preserved temperature range (oC)	-40 ~ 60
	Average power consumption (mA)	35
Connecting cable	Cable length (m)	10
Sensor protective	Dimensions of Front Plate (W x H x D, mm)	80 x 110 x 44.6
cover	Dimension of Backplate (W x H x D, mm)	80 x 110 x 6.5

This function available for ARU\*\*\*\*L\*\*5 and 4 (MULTI V 5, MULTI V IV H/P, H/R model)

### **Included Parts**







MECHANICAL

AC

CE

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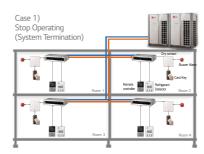
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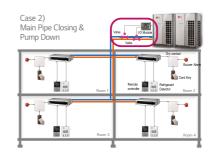
Sensor

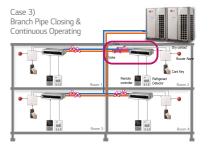
Connecting Cable Sensor Protective Cover

# **Key Application**

Refrigerant Leakage Detector has three application methods.







Accessory Specification (To realize the case 2 application)



Necessary



111

PRLDNVS0 (Refrigerant leak detector)



Automatic Ball Valve<sup>1)</sup>

don't provide this accessory

(Dry contact)









Central Control

(Direct connection DC 30V, ~ 1A) 1) Please contact to subsidiary

**ACCESSORIES** 322 I 323

**MECHANICAL ACCE** 

# **EEV KIT (for Indoor Unit)**

MULTI V EEV KIT is specially designed to reduce noise and make comfort environment.



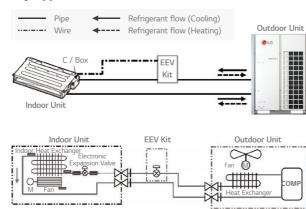
# Model Name

# PRGK024A0

# • Decreasing noise level of Multi V Indoor units and easy installation.

## **Key Application**

**Key Features** 



# **Applied Products**

Indoor Unit	Model	Chassis	Applicable
	1 Way Cassette	TU	0
	2 May Cassatta	TT	N/A
	2 Way Cassette	TS	○ (~5.6kW)
Cassette		TR	0
		TQ	○ (~4.5kW)
	4 Way Cassette	TP	N/A
		TN	N/A
		TM	-
		BG	-
	High Sensible	BR	-
		B8	-
	High Static	B8	-
Duct		M1	○ (~5.6kW)
Duct	Middle Static	M2	-
		M3	-
		L1	0
	Low Static	L2	-
		L3	-
	Floor Standing	CE	0
	-	CF	-
	Convertible	VE	0
	Ceiling Suspended	V1	-
	Celling Suspended	V2	-
Etc		SJ	0
Lic	Wall Mounted	SK	0
		SV	-
	Art Cool	SF	0
	Console	QA	0
	Hydro kit	K2	-
	TIYGIO KIL	K3	-

%  $\bigcirc$  : Applied, - : Not applied, N/A : Not Applicable

# EEV Kit can be applied for the space which requires quiet environment and noise sensitive space.







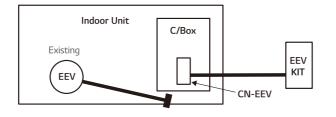
Meeting room

Note: If you don't use EEV of same specification, Cooling (Heating) capacity could be decreased.

## How to Install

Open Indoor unit's control box cover.

- ① Open fully indoor unit's EEV through vacuum mode of ODU setting.
   ② Detach the Indoor unit's EEV connector from PCB and then push the reset button of Outdoor unit's PCB.
- ③ After connecting indoor unit's EEV CONNECTOR, repeat the process
  ① & ②. Then, connect the EEV CONNECTOR of EEV KIT in PCB of
- ⑤ Assemble the control box cover.



# **IR Receiver**

IR RECEIVER can be connected to ceiling concealed duct and floor standing unit which the customer wants to control by wireless remote controller.



# **Model Name**

PWLRVN000

### **Applied Products**

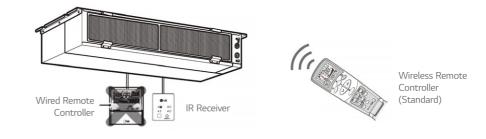
Multi V Indoors (Ceiling Concealed Duct, Floor Standing Units)

# **Key Features**

- Designed for wireless control
- Indication lamps (3 colors) and Self-diagnosis function

### Key Application

Note: Do not install both the IR Receiver and Wired Remote Controller. This may cause malfunctions.



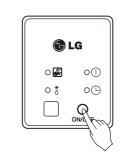


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Signal Receiver

# Operation of Indication Lamps

- ① Emergency Operation button: Turns the indoor unit on or off when remote controller is not working.
- ② Signal Detector: Receives the signal from remote controler.
- 3 Timer lamp (Green): Lights up during the timer operation.
- Hotstart lamp (Orange): Lights up during the pre-heating operation, defrost operation as well as latent heat removal operation in heat mode. Available only for the heat pump models, not cooling only models.
- ⑤ System On / Off lamp (Red): Lights up during system controller operation.
- 6 Filter Sign lamp (Green): Lights up after 2,400 hours from the time of first power on operation.



### Test Run Mode

After installing the product, you must run a Test Run mode. Press the Emergency Operation button for 5 seconds, until the LED flickers. Then the indoor unit, duct runs cooling mode for 18 minutes, where the setting temperature is  $18^{\circ}$ C and the fan speed is high.

ACCESSORIES 324 I 325

**MECHANICAL ACCE** 

SSORIES

# **Independent Power Module**

It closes EEV in indoor there is a power cut.



# **Model Name**

# **Applied Products**

# Multi V Indoor Units

# **Key Features**

- Independent Power Module is specially designed to close the Indoor EEV when power cut-off.
- Supply Voltage : DC 12V  $\pm$  50%

## **Included Parts**

Model			PRIP0	
Item	Independent Power Kit	Screw	Clamp (Tie Wrap)	(Other)
Q'ty	1	2	4	• Harness 1 (1 m)
	~~			Harness 2 (1 m)
			• •	• Harness 3 (1 m)
Figure				<ul> <li>Harness 4 (0.05 m)</li> </ul>
		M4 x 10		<ul> <li>Installation Manual</li> </ul>
				• Insulator (PE, 2 EA)

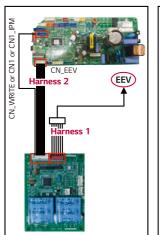
# **Key Application**

If the EEV is opened due to power cut off, liquid refrigerant flows into compressor. It could damage the compressor in cooling mode. Also condensing might be happened for unclosed EEV's indoor unit due to flow of refrigerant.

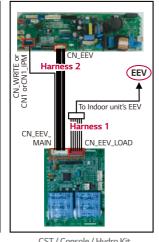


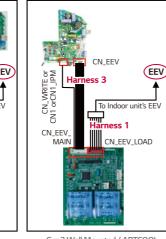
# How to Install

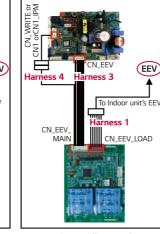
- ① Turn the power off using circuit breaker.
- ② Disconnect the EEV cable of the indoor unit's PCB.(CN-EEV)
- 3 Connect the independent power kit (CN-EEV/LOAD) to the indoor unit's EEV, using harness 1.
- @ Connect the independent power kit (CN-EEV/MAIN) to the indoor unit's PCB (CNEEV/CN\_WRITE or CN1 or CN1\_IPM), using harness 2 or 3, 4.



DUCT/FS/CVT/FAU







CST / Console / Hydro Kit

Gen2 Wall Mounted / ARTCOOL

Gen4 Wall Mounted

# \* FS : Floor Standing \* CVT : Convertible \* FAU : Fresh Air Intake Unit \* CST : Cassette

# **Auxiliary Heater Relay Kit**

Providing an efficient way to add auxiliary heat.



# **Included Parts**

Model		PRARH1	1	
Item	Auxliary Heater Relay Kit	Screw	Insulation	Installation Manual
Q'ty	1	2	2	1
Figure				$\Diamond$

Model		PRARS	1	
Item	Auxliary Heater Relay Kit	Screw	Insulation	Installation Manual
Q'ty	1	2	2	1
Figure		<b>\(\tau\)</b>	$\Diamond$	$\Diamond$

# **Model Name** PRARS1

# **Applied Products**

Wall Mounted, Art Cool Mirror, Art Cool Gallery

# **Model Name**

PRARH1

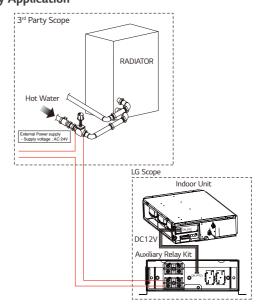
# **Applied Products**

1, 2, 4 Way Ceiling Cassette, High Static Ducted, Low Static Ducted, Ceiling Suspended

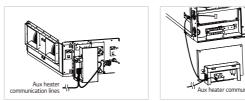
# **Key Features**

- Provides two stages of auxiliary heat for indoor unit.
- Provides ability to use the two stage auxiliary heater as the primary or secondary heating source.

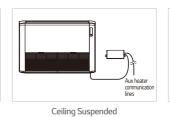
# **Key Application**

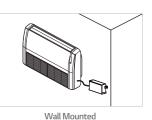


# How to Install









High Static Ducted

1 Way Cassette

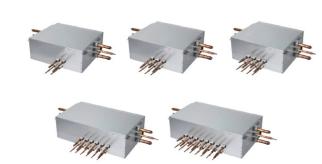
Low Static Ducted

2 Way Cassette

4 Way Cassette

**ACCESSORIES** 326 I 327

# **Heat Recovery**



# **Model Name**

PRHR023 (2 Branch Unit) PRHR033 (3 Branch Unit) PRHR043 (4 Branch Unit) PRHR063 (6 Branch Unit) PRHR083 (8 Branch Unit)

# **Applied Products**

Multi V 5 Multi V IV Multi V Water IV

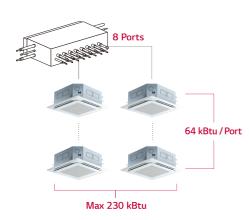
# **Key Features**

**PIPING ACCESSORIE** 

- Max. 64 indoor units can be connected. (Max. 8 indoor units per branch)
- It is easy to install due to the automatic search algorithm for piping detection.
- Subcooling cycle in HR unit makes the system efficiency maximum.

# Connection Capacity

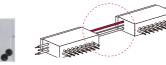
Maximum number of connectable indoor units: 64 IDUs / HR unit (in case of 8 ports model)



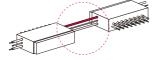
### Flexible Connection

Series connection can be installed without pipes crossing.

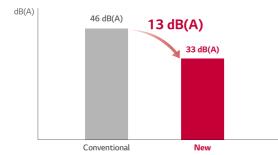




Considering the direction for Indoor units and SVC port, connection for reverse direction makes much easier



# Reduce Noise



- Test Condition (ISO Standard)

   Temp.: (Cooling) 27°C DB / 19°C WB, 35°C DB / 24°C WB

  (Heating) 20°C DB / 15°C WB, 7°C DB / 6°C WB

   Operating: cooling → heating switching operation

# **Included Parts**

- HR unit (1EA)
- Hanging bolts M10 or M8 (4EA)
- Nut M8 or M10 (8EA)
- Washers M10 (8EA)
- Reducers

# Specification

	Mode	el		PRHR023	PRHR033	PRHR043	PRHR063	PRHR083
Number of Branc	h		EA	2	3	4	6	8
Maximum Connectable Capacity of Indoor Units (Per branch / unit)		kW	17.5 / 35	17.5 / 52.5	17.5 / 69.5	17.5 / 69.5	17.5 / 69.5	
Maximum Numbe Units Per Branch	er of Connec	table Indoor	EA	8	8	8	8	8
Naminal Innut	Cooling		kW	0.040	0.040	0.040	0.076	0.076
Nominal Input	Heating		kW	0.038	0.038	0.038	0.072	0.072
Net. Weight			kg	18.5	20.3	22.0	28.3	31.8
Dimensions (W x	H x D)		mm	786 x 218 x 657	786 x 218 x 657	786 x 218 x 657	1,113 x 218 x 657	1,113 x 218 x 657
	Indoor	Liquid	mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
	Unit	Gas	mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Piping		Liquid	mm (inch)	9.52 (3/8)	12.7 (1/2)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Connections	Outdoor Unit	Low Pressure	mm (inch)	22.2 (7/8)	28.58 (11/8)	28.58 (11/8)	28.58 (11/8)	28.58 (11/8)
		High Pressure	mm (inch)	19.05 (3/4)	22.2 (7/8)	22.2 (7/8)	22.2 (7/8)	22.2 (7/8)
Power Supply			Ø, V, Hz	1, 220-240, 50 1, 220, 60				

# Reducers for Indoor Unit and HR Unit

(Unit:mm)

				(Offic. Hill)
	Model	Liquid	High Pressure	Low Pressure
Indoor unit reducer		00952 Ø635		OD15.88 Ø12.7
UD units and accord	PRHR023	OD952 Ø635	OD12.7 09.52	OD15.88 012.7
HR unit reducer	PRHR033 PRHR043 PRHR063 PRHR083	OD15.88 Ø12.7 Ø9.52	O0222 Ø19.05 Ø15.88	OD28.58 0222 019.05

ACCESSORIES 328 I 329

# Y Branch and Header Branch

For refrigerant distribution of indoor units.



## Model Name

Refer to specifications

# **Applied Products**

Multi V 5

Multi V IV Multi V III, Multi V Plus II, Multi V Plus

Multi V S

Multi V Water IV

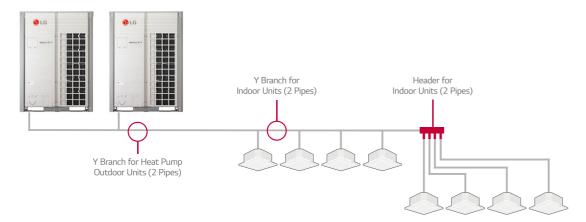
Multi V Water II

Multi V Water S

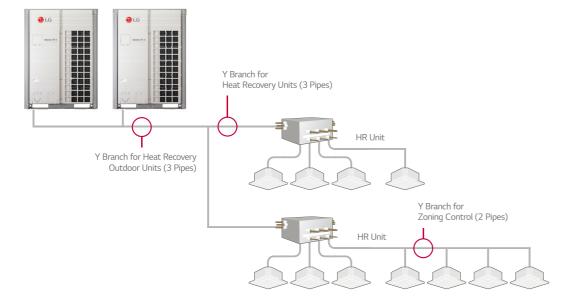
# **Key Features**

- Various Y Branch pipe of different capacities make MULTI V installation much easier.
- Y Branch and header branch for both gas and liquid are provided.
- Insulation material is also provided for covering the branches.

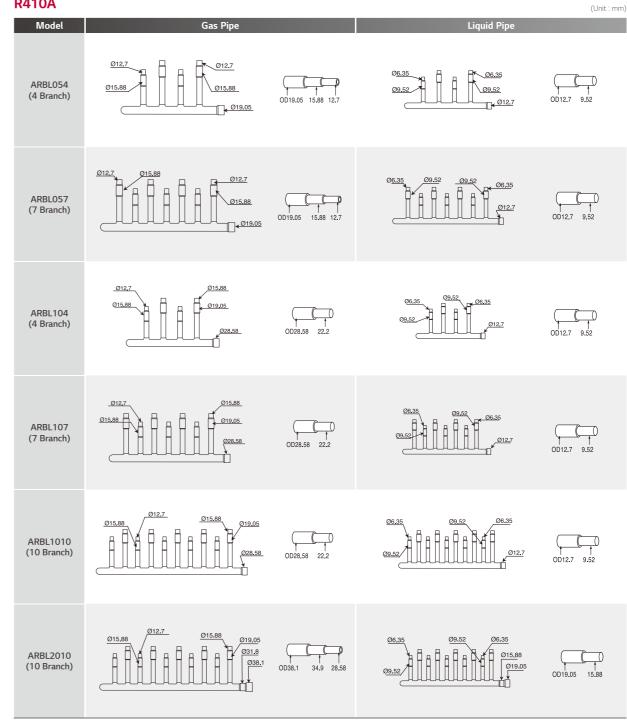
# Key Application Heat Pump System



# Heat Recovery System



Specification
Header Branch
R410A



ACCESSORIES 330 | 331

**PIPING ACCESSORIE** 

# **Piping Accessories**

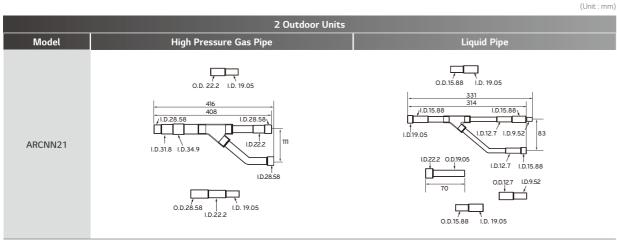
Y Branch pipe for connection of outdoor units.

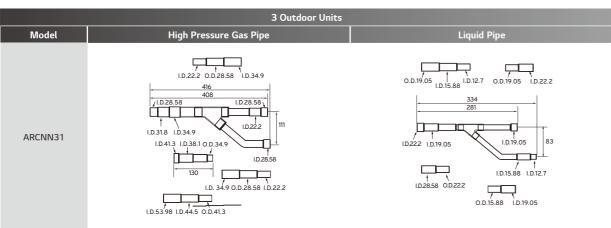
# Specification

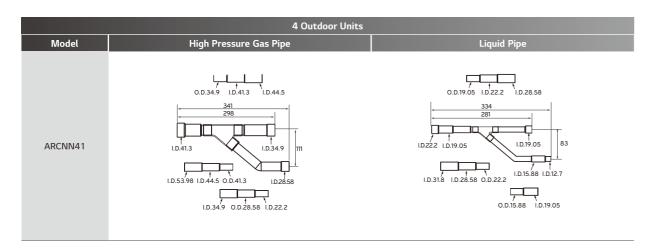
Heat Pump

**R410A** 

MULTI V 5, MULTI V IV, MULTI V III, MULTI V WATER IV, MULTI V WATER II





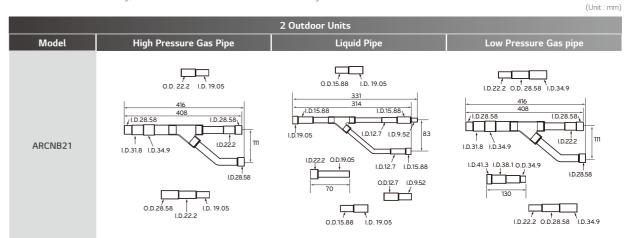


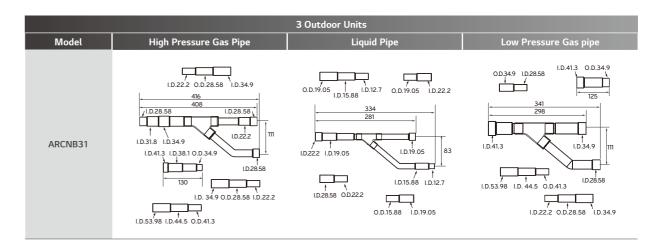
# Specification

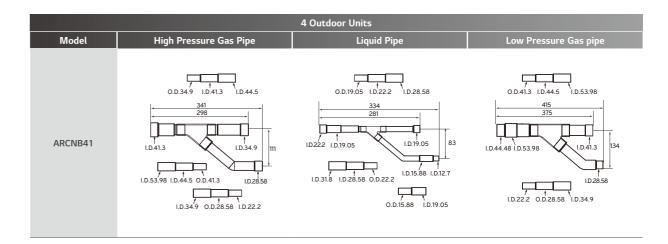
Heat Recovery

R410A

MULTI V 5, MULTI V IV Heat Recovery, MULTI V III Heat Recovery, MULTI V WATER IV Heat Recovery, MULTI V WATER II Heat Recovery







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# **Piping Accessories**

Y Branch pipe for connection of outdoor units.

# Specification

Heat Pump, Heat Recovery Zone Control

**R410A** 

MULTI V 5, MULTI V IV, MULTI V III, MULTI V PLUS II, MULTI V PLUS, MULTI V S, MULTI V MINI, MULTI V SPACE II, MULTI V WATER IV, MULTI V WATER S, MULTI V WATER II

Model	Gas Pipe	Liquid Pipe
ARBLN01621	D15.88 ID15.88 ID15.88 ID15.88 ID15.88 ID15.88	D952 D635 D635 D635 D635
ARBLN03321	D1905 D1588	D952 D635 D635 D635 D635

Model	Gas Pipe	Liquid Pipe
ARBLN07121	D1905 ID2858 ID222 ID1588 ID318 ID2858 OD1905 ID2858 ID349 ID2858 OD1905 ID2858	UD127 LD15.88 LD15.88 LD127 LD19.05 LD19.05 LD15.88 LD19.05 LD
ARBLN14521	(D349 (D341) (D381) (D2858 (D349) (D2858 (D349) (D3	LD15.88 LD19.05 LD222 LD15.88 LD15.88 OD19.05 LD15.88 OD19.05 LD12.7 LD15.88 OD19.05 LD12.7 LD15.88

Model	Gas Pipe	Liquid Pipe
ARBLN23220	D44.48 (D41.3   ID38.1 (D41.3   ID38.1   ID38.1   ID22.5 (D41.4.48   ID25.4   ID25.4   ID27.5 (D15.88   ID22.2   ID5.88   ID22.2   ID5.88   ID79.05	1D254 1D254 1D254 1D3905 1D3905 1D254 2

# Specification

Heat Recovery

R410A

MULTI V 5, MULTI V IV Heat Recovery, MULTI V III Heat Recovery, MULTI V WATER IV Heat Recovery, MULTI V WATER II Heat Recovery

(Unit : mm

**PIPING ACCESSORIES** 

Model	High Pressure Gas Pipe	Liquid Pipe	Low Pressure Gas Pipe
ARBLB01621	ID. 15.88 ID. 12.7 ID. 15.88 ID. 12.7 ID. 15.88 ID. 12.7 ID. 15.88 ID. 12.7 ID. 15.88	D952 D635 D635 D635 D635 D635	D1588 D1905 D01588
ARBLB03321	ID. 15.88 ID. 15.88 ID. 19.05 ID. 19.05 ID. 12.7 ID. 9.52 ID. 6.35 OD. 19.05	D952 D635 D127 D952 D635	(D2222 (D1905 (D1588 (D1905 (D
ARBLB07121	ID. 19.05 ID. 28.58 ID. 28.58 ID. 28.58 ID. 15.88 ID. 15.88 ID. 19.05 ID. 12.7 ID. 12.7	(D1905 (D	ID19.05 ID19.0
ARBLB14521	ID. 28.58 ID. 28.58 ID. 25.4 ID. 19.05 ID. 28.58 ID. 25.4 ID. 12.7	1.D19.05 1.D19.05 1.D19.05 1.D15.88 1.D15.88 1.D15.88 1.D15.88 1.D15.88 1.D15.88 1.D15.88 1.D15.88 1.D15.88 1.D15.88	10349 10413 10381 102859 10285

Model	High Pressure Gas Pipe	Liquid Pipe	Low Pressure Gas Pipe
ARBLB23220	1D34.9 1D38.9 1D	1D25.4 1D222 1D222 1D25.4 1D1905  1D25.4 1D1905  1D25.4 1D1905  1D25.4 1D1905  96  379  0D1905 1D1588 1D127 0D127 1D635	1D53.98 1D44.48 1D31.8 1D41.3 1D44.48 1D33.81 1D41.3 1D44.48 1D31.8 1D44.48 1D33.81 1D34.8 1D33.8 1D

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**PIPING ACCESSORIES** 

# **Refrigerant Charging Kit**

Recharging refrigerant after a pump down or when refrigerant is either insufficient or excessive.



# Model Name PRAC1

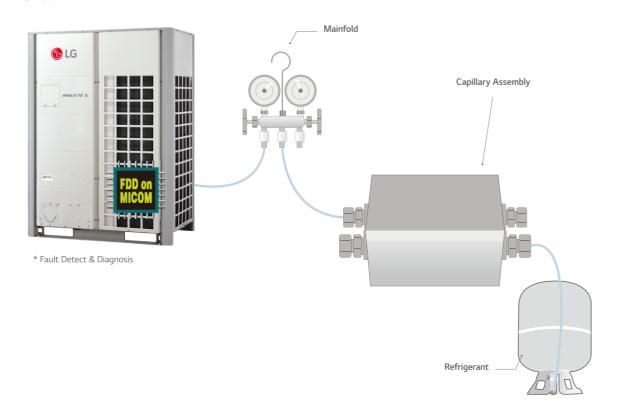
# **Applied Products**

MULTI V 5 MULTI V IV Heat Pump MULTI V IV Heat Recovery MULTI V III Heat Pump MULTI V III Heat Recovery MULTI V PLUS II MULTI V SYNC II

# How to Use

- Arrange manifold, capillary assembly, refrigerant vessel and scale.
- Connect manifold to the gas pipe service valve of outdoor unit as shown in the figure.
- · Connect manifold and capillary tube. Use designated capillary assembly only.
- If designated capillary assembly isn't used, the system may get damaged.
- Connect capillary and refrigerant vessel
- Purge hose and manifold
- After "568" is displayed, open the valve and charge the refrigerant.

# **Key Application**



# **Drain Hose**

# Easy drain installation.



# Model Name PHDHA05T PHDHA07T PHDHA05B PHDHA07B

# **Applied Products**

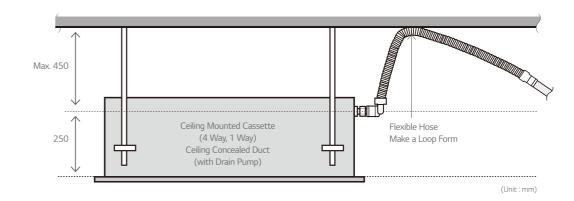
Multi V Indoor units

# **Key Features**

- $\bullet$  It reduces the installation time by over 40% with elbow-less drain hose.
- Drain pump covers maximum 700mm high, featuring easy piping installation.

# **Key Application**

• Ceiling Mounted Cassette and Ceiling Concealed Duct. (Refer to PDB for applicable model)



# Specification

Model	Length	Quantity
PHDHA05T	500mm	30EA
PHDHA07T	700mm	30EA
PHDHA05B	500mm	5EA
PHDHA07B	700mm	5EA

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**PIPING ACCESSORIE** 

# **Stopper Valves**



# **Model Name**

PRVT120 (Under 12.7mm) PMVT780 (Under 22.2mm) PMVT980 (Under 28.58mm)

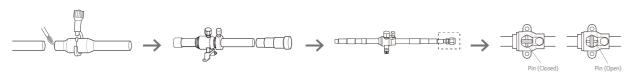
# **Key Features**

- This unit can be applied for the additional indoor unit's installation.
- This unit can be applied for each indoor unit's service.

# Specification

Model	Specifica	ition
PRVT120	Input → ID6.95 OD6.52 ID12.7	→ Output(Indoor unit) ID12.7 ID6.35
PRVT780	Input → ID15.88 ID19.05 ID22.2	→ Output(Indoor unit)  ID22.2 ID19.05 ID15.88
PRVT980	Input →	Output(Indoor unit) IDER,58

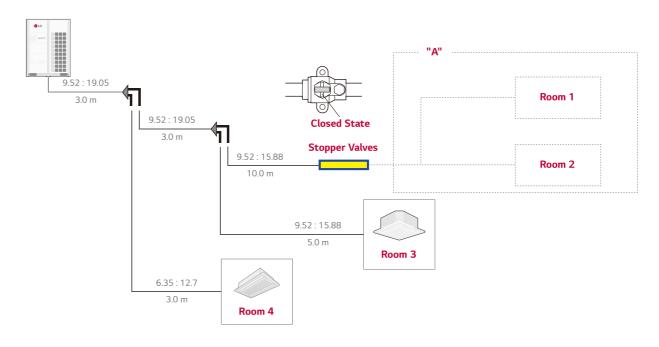
# How to Install



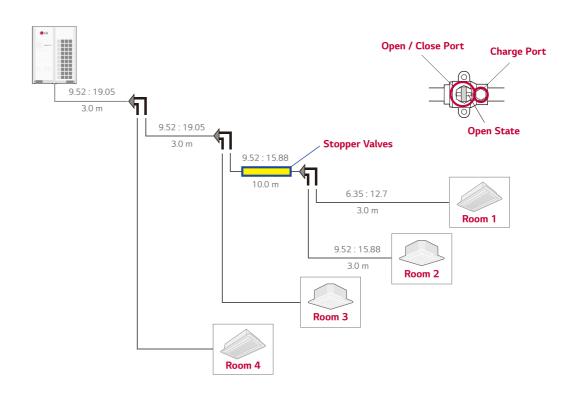
- Cut the inlet side of the connector, and weld the nine
- If installing additional indoor units, the outlet side connector should be cut according to installation pipe.
- When installing a stopper valve, the flare part should be facing towards additional indoor unit.
- 4. When installing an additional indoor unit, the SVC valve should be in closed state.

# Application

(Room 3 & 4: in use / Room 1 & 2: need to install indoor units)



- In case of installation of additional indoor unit, refrigerant of used indoor unit must be discharged. (Room 3 & Room 4)
- If stopper valve is already installed, you can install additional indoor unit without refrigerant loss from the entire system.
- After installation of additional indoor unit, you just need refrigerant charging for "A" section.
- Then, open the Stopper Valve.



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<sup>\*</sup> When welding, service valve should be wrapped by wet cloth.